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◁213▷ Homo sapiens

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<213> Homo sapiens

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His Gly Leu Ala Asp Ser Ser Ala Asp Leu Ser Cys Asp Ser Arg Val		415
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<210> 9

<211> 255

<212> PRT

<213> Homo sapiens

<400> 9

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          20             25             30
Glu Glu Asn Gly Phe Glu Asp Arg Lys Asp Asp Ser Asp Asp Gly
          35             40             45
Gly Gly Trp Ile Thr Pro Ser Asn Ile Lys Gln Ile Gln Gln Glu Leu
          50             55             60

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Asp	Phe	Ala	Met	Gln	Asn	Val	Leu	Leu	Gln	Met	Gly	Leu	His	Val	Leu
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Ala	Val	Asn	Gly	Met	Leu	Ile	Arg	Glu	Ala	Arg	Ser	Tyr	Ile	Leu	Arg
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Cys	His	Gly	Cys	Phe	Lys	Thr	Thr	Ser	Asp	Met	Ser	Arg	Val	Phe	Cys
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Ser	His	Cys	Gly	Asn	Lys	Thr	Leu	Lys	Lys	Val	Ser	Val	Thr	Val	Ser
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Ser	Ala	Thr	Leu	Gln	Val	Arg	Asp	Ser	Thr	Leu	Gly	Ala	Gly	Arg	Arg
225				230						235				240	
Arg	Leu	Asn	Pro	Asn	Ala	Ser	Arg	Lys	Lys	Phe	Val	Lys	Lys	Arg	
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<211> 1993

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (13).. (981)

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<210> 11

<211> 323

<212> PRT

<213> Homo sapiens

<400> 11

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      20             25            30
Arg Val Arg Lys Asp Met Tyr Asn Asp Thr Leu Asn Gly Ser Thr Glu
      35             40            45
Lys Arg Ser Ala Glu Leu Pro Asp Ala Val Gly Pro Ile Val Gln Leu
      50             55            60
Gln Glu Lys Leu Tyr Val Pro Val Lys Glu Tyr Pro Asp Phe Asn Phe
      65             70            75            80
Val Gly Arg Ile Leu Gly Pro Arg Gly Leu Thr Ala Lys Gln Leu Glu
      85             90            95
Ala Glu Thr Gly Cys Lys Ile Met Val Arg Gly Lys Gly Ser Met Arg
      100            105            110
Asp Lys Lys Lys Glu Glu Gln Asn Arg Gly Lys Pro Asn Trp Glu His
      115            120            125
Leu Asn Glu Asp Leu His Val Leu Ile Thr Val Glu Asp Ala Gln Asn
      130            135            140
Arg Ala Glu Ile Lys Leu Lys Arg Ala Val Glu Glu Val Lys Lys Leu
      145            150            155            160
Leu Val Pro Ala Ala Glu Gly Glu Asp Ser Leu Lys Lys Met Gln Leu
      165            170            175
Met Glu Leu Ala Ile Leu Asn Gly Thr Tyr Arg Asp Ala Asn Ile Lys
      180            185            190
Ser Pro Ala Leu Ala Phe Ser Leu Ala Ala Thr Ala Gln Ala Ala Pro
      195            200            205
Arg Ile Ile Thr Gly Pro Ala Pro Val Leu Pro Pro Ala Ala Leu Arg
      210            215            220
Thr Pro Thr Pro Ala Gly Pro Thr Ile Met Pro Leu Ile Arg Gln Ile
      225            230            235            240

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 Pro Tyr Thr Leu Ala Pro Ala Thr Ser Ile Leu Glu Tyr Pro Ile Glu
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 Pro Ser Gly Val Leu Gly Ala Val Ala Thr Lys Val Arg Arg His Asp
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<210> 12

<211> 1570

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (101).. (1147)

<400> 12

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<210> 13

<211> 349

<212> PRT

<213> Homo sapiens

<400> 13

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Pro Lys Asn Asp Thr Asp Asp Glu Ser Glu Thr Pro Glu Glu Leu Glu
      35             40             45
Glu Glu Ile Pro Val Val Ile Cys Ala Ala Ala Gly Arg Met Gly Ala
      50             55             60
Thr Met Ala Ala Ile Asn Ser Phe Tyr Ser Asn Thr Asp Ala Asn Ile
      65             70             75             80
Leu Phe Tyr Val Val Gly Leu Arg Asn Thr Leu Thr Arg Ile Arg Lys
      85             90             95
Trp Ile Glu His Ser Lys Leu Arg Glu Ile Asn Phe Lys Ile Val Glu

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130	135	140	
Leu Ile His Gln His Glu Lys Val Ile Tyr Leu Asp Asp Asp Val Ile			
145	150	155	160
Val Gln Gly Asp Ile Gln Glu Leu Tyr Asp Thr Thr Leu Ala Leu Gly			
165	170	175	
His Ala Ala Ala Phe Ser Asp Asp Cys Asp Leu Pro Ser Ala Gln Asp			
180	185	190	
Ile Asn Arg Leu Val Gly Leu Gln Asn Thr Tyr Met Gly Tyr Leu Asp			
195	200	205	
Tyr Arg Lys Lys Ala Ile Lys Asp Leu Gly Ile Ser Pro Ser Thr Cys			
210	215	220	
Ser Phe Asp Pro Gly Val Ile Val Ala Asn Met Thr Glu Trp Lys His			
225	230	235	240
Gln Arg Ile Thr Lys Gln Leu Glu Lys Trp Met Gln Lys Asn Val Glu			
245	250	255	
Glu Asn Leu Tyr Ser Ser Ser Leu Gly Gly Gly Val Ala Thr Ser Pro			
260	265	270	
Met Leu Ile Val Phe His Gly Lys Tyr Ser Thr Ile Asn Pro Leu Trp			
275	280	285	
His Ile Arg His Leu Gly Trp Asn Pro Asp Ala Arg Tyr Ser Glu His			
290	295	300	
Phe Leu Gln Glu Ala Lys Leu Leu His Trp Asn Gly Arg His Lys Pro			
305	310	315	320
Trp Asp Phe Pro Ser Val His Asn Asp Leu Trp Glu Ser Trp Phe Val			
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<210> 14

<211> 1962

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (213)..(938)

<400> 14

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<211> 242

<212> PRT

<213> Homo sapiens

<400> 15

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 Val Ser Ser Arg Phe Ser Ser Arg Ser Arg Arg Ser Lys Ser Arg Ser
 50 55 60
 Arg Ser Arg Arg Arg His Gln Arg Lys Tyr Arg Arg Tyr Ser Arg Ser
 65 70 75 80
 Tyr Ser Arg Ser Arg Ser Arg Ser Arg Ser Arg Tyr Arg Glu Arg
 85 90 95
 Arg Tyr Gly Phe Thr Arg Arg Tyr Tyr Arg Ser Pro Ser Arg Tyr Arg
 100 105 110
 Ser Arg Ser Arg Ser Arg Ser Arg Ser Arg Gly Arg Ser Tyr Cys Gly
 115 120 125
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Thr Asn Ile Asp Leu Pro Ala Ser Leu Arg Thr Val Pro Ser Ala Lys
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<211> 3553

<212> DNA

<213> Homo sapiens

<220>

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<222> (1699).. (2994)

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<210> 17

<211> 432

<212> PRT

<213> Homo sapiens

<400> 17

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Arg	Arg	Met	Pro	Ser	Leu	Leu	Glu	Tyr	Leu	Ser	Tyr	Asn	Cys	Asn	Phe
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Phe	Ile	Glu	Gly	Arg	Ser	Tyr	His	Ile	Thr	Gln	Ser	Gly	Glu	Asn	Gly
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Lys	Glu	Glu	Thr	Gln	Tyr	Glu	Arg	Thr	Glu	Pro	Ser	Pro	Asn	Thr	Ala
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 Leu Leu Ala Ala Arg Pro Lys Tyr Tyr Phe Ala Trp Thr Leu Ala Asp
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 Gly Ala Ala Arg Trp Asp Leu Ile Ser Asn Leu Arg Ile Gln Gln Ile
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 Glu Met Ser Thr Ser Phe Lys Met Phe Leu Asp Asn Trp Asn Ile Gln
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 Thr Ala Leu Trp Leu Lys Arg Val Cys Tyr Glu Arg Thr Ser Phe Ser
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 Pro Thr Ile Gln Thr Phe Ile Leu Ser Ala Ile Trp His Gly Val Tyr
 275 280 285
 Pro Gly Tyr Tyr Leu Thr Phe Leu Thr Gly Val Leu Met Thr Leu Ala
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 Ala Arg Ala Met Arg Asn Asn Phe Arg His Tyr Phe Ile Glu Pro Ser
 305 310 315 320
 Gln Leu Lys Leu Phe Tyr Asp Val Ile Thr Trp Ile Val Thr Gln Val
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 Ser Leu Thr Phe Tyr Ser Ser Trp Tyr Tyr Cys Leu His Ile Leu Gly
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 385 390 395 400
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<210> 18

<211> 1031

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (102).. (734)

<400> 18

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1031

<210> 19

<211> 211

<212> PRT

<213> Homo sapiens

<400> 19

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 35 40 45
 Asn Val Pro Val Gln Met Ser Cys His Pro Glu Leu Asn Gln Tyr Ile
 50 55 60
 Gln Asp Thr Leu His Cys Val Lys Pro Leu Leu Glu Lys Asn Asp Val
 65 70 75 80
 Glu Lys Val Val Val Val Ile Leu Asp Lys Glu His Arg Pro Val Glu
 85 90 95
 Lys Phe Val Phe Glu Ile Thr Gln Pro Pro Leu Leu Ser Ile Ser Ser
 100 105 110
 Asp Ser Leu Leu Ser His Val Glu Gln Leu Leu Arg Ala Phe Ile Leu
 115 120 125
 Lys Ile Ser Val Cys Asp Ala Val Leu Asp His Asn Pro Pro Gly Cys
 130 135 140
 Thr Phe Thr Val Leu Val His Thr Arg Glu Ala Ala Thr Arg Asn Met
 145 150 155 160
 Glu Lys Ile Gln Val Ile Lys Asp Phe Pro Trp Ile Leu Ala Asp Glu
 165 170 175
 Gln Asp Val His Met His Asp Pro Arg Leu Ile Pro Leu Lys Thr Met
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 195 200 205
 Lys Gly Ser
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<210> 20

<211> 2869

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (569).. (2170)

<400> 20

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<210> 21

<211> 534

<212> PRT

<213> Homo sapiens

<400> 21

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      20             25            30
Ser Ser Met Arg Ile Val Val Asp Ser Glu Ser Arg Lys Arg Thr Ile
      35             40            45
Gly Ser Gly Glu Pro Gly Val Pro Thr Lys Lys Thr Trp Phe Asp Lys
      50             55            60
Pro Asn Phe Asn Arg Thr Asn Ser Pro Gly Phe Gln Lys Lys Val Gln
      65             70            75            80
Phe Gly Asn Glu Asn Thr Lys Leu Glu Leu Arg Lys Val Pro Pro Glu
      85             90            95

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Leu Asn Asn Ile Ser Lys Leu Asn Glu His Phe Ser Arg Phe Gly Thr			
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Leu Val Asn Leu Gln Val Ala Tyr Asn Gly Asp Pro Glu Gly Ala Leu			
115	120	125	
Ile Gln Phe Ala Thr Tyr Glu Glu Ala Lys Lys Ala Ile Ser Ser Thr			
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Glu Ala Val Leu Asn Asn Arg Phe Ile Lys Val Tyr Trp His Arg Glu			
145	150	155	160
Gly Ser Thr Gln Gln Leu Gln Thr Thr Ser Pro Lys Pro Leu Val Gln			
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Gln Pro Ile Leu Pro Val Val Lys Gln Ser Val Lys Glu Arg Leu Gly			
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Pro Val Pro Ser Ser Thr Ile Glu Pro Ala Glu Ala Gln Ser Ala Ser			
195	200	205	
Ser Asp Leu Pro Gln Val Leu Ser Thr Ser Thr Gly Leu Thr Lys Thr			
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Val Tyr Asn Pro Ala Ala Leu Lys Ala Ala Gln Glu Thr Leu Leu Val			
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Ser Thr Ser Ala Val Asp Asn Asn Glu Ala Gln Lys Lys Lys Gln Glu			
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Glu Lys His Ile Glu Thr Gln Lys Met Leu Ile Ser Lys Leu Glu Lys			
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Asn Lys Thr Met Lys Ser Glu Asp Lys Ala Glu Ile Met Lys Thr Leu			
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Glu Val Leu Thr Lys Asn Ile Thr Lys Leu Lys Asp Glu Val Lys Ala			
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Met Gln Lys Glu Leu Leu Asp Thr Glu Leu Asp Leu Tyr Lys Lys Met			
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Gln Leu Glu Ala Ala Lys Arg Gly Ile Leu Ser Ser Gly Arg Gly Arg			
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 405 410 415
 Pro Arg Ala Leu Glu Ile Ser Ala Phe Thr Gly Ser Asp Arg Glu Asp
 420 425 430
 Leu Leu Pro His Phe Ala Gln Tyr Gly Glu Ile Glu Asp Cys Gln Ile
 435 440 445
 Asp Asp Ser Ser Leu His Ala Val Ile Thr Phe Lys Thr Arg Ala Glu
 450 455 460
 Ala Glu Ala Ala Ala Val His Gly Ala Arg Phe Lys Gly Gln Asp Leu
 465 470 475 480
 Lys Leu Ala Trp Asn Lys Pro Val Thr Asn Ile Ser Ala Val Glu Thr
 485 490 495
 Glu Glu Val Glu Pro Asp Glu Glu Glu Phe Gln Glu Glu Ser Leu Val
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 Asp Asp Ser Leu Leu Gln Asp Asp Asp Glu Glu Glu Glu Asp Asn Glu
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 Ser Arg Ser Trp Arg Arg
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<210> 22

<211> 1876

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (302)..(1243)

<400> 22

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<210> 23

<211> 314

<212> PRT

<213> Homo sapiens

<400> 23

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 35 40 45
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 Arg Val Asp Ser Pro Gly Arg Thr Glu Pro Cys Thr Ala Ala Leu Asp
 65 70 75 80
 Leu Gly Val Gln Leu Thr Pro Glu Thr Leu Ala Glu Ala Lys Glu Glu
 85 90 95
 Pro Val Glu Val Pro Val Ala Val Pro Val Val Glu Ala Val Pro Glu
 100 105 110
 Glu Gly Leu Ala Gln Val Ala Pro Ser Glu Ser Gln Pro Thr Leu Glu
 115 120 125
 Met Ser Asp Cys Asp Val Pro Ala Gly Glu Gly Gln Cys Pro Ser Leu
 130 135 140
 Glu Pro Gln Glu Ala Val Pro Val Leu Gly Ser Thr Cys Phe Leu Glu
 145 150 155 160
 Glu Ala Ser Ser Asp Gln Phe Leu Pro Ser Leu Glu Asp Pro Leu Ala
 165 170 175
 Gly Met Ser Ala Leu Ala Ala Ala Ala Glu Leu Pro Gln Ala Arg Pro
 180 185 190
 Leu Pro Ser Pro Gly Ala Ala Gly Ala Gln Ala Leu Glu Lys Leu Glu
 195 200 205
 Ala Ala Glu Ser Leu Val Leu Glu Gln Ser Phe Leu His Gly Ile Thr
 210 215 220
 Leu Leu Ser Glu Ile Ala Glu Leu Glu Leu Glu Arg Arg Ser Pro Pro
 225 230 235 240
 Gln Gly Leu Pro Pro Cys Met Gly Gln Gly Ser Pro Met Pro Ala Gly
 245 250 255
 Leu Pro Asp Cys Ala Arg Gly Pro Ala Pro Thr Leu Ser Gly Trp Pro
 260 265 270
 Arg Leu Gly Glu Gln Ser Arg Val Gly Leu Gln Pro Gly Val Ser Val
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<210> 24

<211> 1907

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (446).. (1087)

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<212> PRT

<213> Homo sapiens

<400> 25

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<212> PRT

<213> Homo sapiens

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His Lys Ile Asn Gln Cys Gln Leu Thr Asp Gly Val Asp Val Glu Asp
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      100            105            110
Gly Pro Gly Leu Pro Tyr Pro Cys Gln Phe Cys Asp Lys Ser Phe Ser
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Leu Lys Thr His Thr Ser Asn Lys Pro Tyr Lys Cys Ala Ile Cys Arg
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Arg Gly Phe Leu Ser Ser Ser Ser Leu His Gly His Met Gln Val His
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Glu Arg Asn Lys Asp Gly Ser Gln Ser Gly Ser Arg Met Glu Asp Trp
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 325 330 335
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 Asn Tyr Ile His Asn Gly Lys Lys Ser Arg Ala Leu Ser Pro Leu Ser
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<212> DNA

<213> Homo sapiens

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1988

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 195 200 205
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 210 215 220

Thr Leu Phe Gln His Ile His Arg Thr Gly Lys Lys Tyr Asp Ala

225

230

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<210> 30

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<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (128).. (1195)

<400> 30

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<210> 31

<211> 356

<212> PRT

<213> Homo sapiens

<400> 31

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				20					25					30	
Gly	Ser	Ser	Leu	Thr	Ser	Phe	Gly	Thr	Glu	Thr	Ser	Asn	Ser	Gly	Thr
				35					40					45	
Leu	Pro	Gln	Ser	Ser	Ala	Val	Gly	Ser	Ala	Phe	Thr	Gln	Asp	Thr	Arg
				50					55					60	
Ser	Leu	Lys	Thr	Gln	Leu	Ser	Gln	Gly	Arg	Ser	Ser	Pro	Gln	Leu	Asp
				65					70					75	
Pro	Leu	Arg	Lys	Ser	Pro	Thr	Met	Glu	Gln	Ala	Val	Gln	Thr	Ala	Ser
				85					90					95	
Ala	His	Leu	Pro	Ala	Pro	Ala	Ala	Val	Gly	Arg	Arg	Ser	Pro	Val	Ser
				100					105					110	
Thr	Arg	Pro	Leu	Pro	Ser	Ala	Ser	Gln	Lys	Ala	Gly	Glu	Asn	Gln	Glu
				115					120					125	
His	Arg	Arg	Ala	Glu	Val	His	Lys	Val	Ser	Arg	Pro	Glu	Asn	Glu	Gln
				130					135					140	

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 Pro Arg Arg Gly Arg Gly Gly His Arg Gly Gly Arg Gly Arg Phe Gly
 165 170 175
 Ile Arg Arg Asp Gly Pro Met Lys Phe Glu Lys Asp Phe Asp Phe Glu
 180 185 190
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 Asn Lys Leu Lys Leu Lys Glu Asp Lys Leu Glu Lys Gln Glu Lys Pro
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 245 250 255
 Asp Lys Thr Lys Ser Phe Phe Asp Asn Ile Ser Cys Asp Asp Asn Arg
 260 265 270
 Glu Arg Arg Pro Thr Trp Ala Glu Glu Arg Arg Leu Asn Ala Glu Thr
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 Phe Gly Ile Pro Leu Arg Pro Asn Arg Gly Arg Gly Gly Tyr Arg Gly
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 305 310 315 320
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<210> 32

<211> 1877

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (127).. (840)

<400> 32

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1877

<210> 33

<211> 238

<212> PRT

<213> Homo sapiens

<400> 33

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      20             25             30
Leu Ser Gly Phe Ala Met Val Ala Met Val Glu Val Gln Leu Asp Ala
      35             40             45
Asp His Asp Tyr Pro Pro Gly Leu Leu Ile Ala Phe Ser Ala Cys Thr
      50             55             60
Thr Val Leu Val Ala Val His Leu Phe Ala Leu Met Ile Ser Thr Cys
      65             70             75             80
Ile Leu Pro Asn Ile Glu Ala Val Ser Asn Val His Asn Leu Asn Ser
      85             90             95
Val Lys Glu Ser Pro His Glu Arg Met His Arg His Ile Glu Leu Ala
      100            105            110
Trp Ala Phe Ser Thr Val Ile Gly Thr Leu Leu Phe Leu Ala Glu Val
      115            120            125
Val Leu Leu Cys Trp Val Lys Phe Leu Pro Leu Lys Lys Gln Pro Gly
      130            135            140
Gln Pro Arg Pro Thr Ser Lys Pro Pro Ala Gly Gly Ala Ala Ala Asn
      145            150            155            160
Val Ser Thr Ser Gly Ile Thr Pro Gly Gln Ala Ala Ala Ile Ala Ser
      165            170            175
Thr Thr Ile Met Val Pro Phe Gly Leu Ile Phe Ile Val Phe Ala Phe
      180            185            190
His Phe Tyr Arg Ser Leu Val Ser His Lys Thr Asp Arg Gln Phe Gln
      195            200            205
Glu Leu Asn Glu Leu Ala Glu Phe Ala Arg Leu Gln Asp Gln Leu Asp
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His Arg Gly Asp His Pro Leu Thr Pro Gly Ser His Tyr Ala

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230

235

<210> 34

<211> 2598

<212> DNA

<213> Homo sapiens

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<222> (24)..(1064)

<400> 34

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<210> 35

<211> 347

<212> PRT

<213> Homo sapiens

<400> 35

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				20					25				30		
Ala	Trp	Gly	Val	Thr	Leu	Ser	Pro	Lys	Asp	Cys	Gln	Val	Phe	Arg	Ser
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 Tyr Leu Pro Ala Asp Thr Val His Leu Ala Val Glu Phe Phe Asn Leu
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 Thr His Leu Pro Ala Asn Leu Leu Gln Gly Ala Ser Lys Leu Gln Glu
 85 90 95
 Leu His Leu Ser Ser Asn Gly Leu Glu Ser Leu Ser Pro Glu Phe Leu
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 Arg Pro Val Pro Gln Leu Arg Val Leu Asp Leu Thr Arg Asn Ala Leu
 115 120 125
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 130 135 140
 Leu Val Leu Lys Glu Asn Gln Leu Glu Val Leu Glu Val Ser Trp Leu
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 His Gly Leu Lys Ala Leu Gly His Leu Asp Leu Ser Gly Asn Arg Leu
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 Arg Lys Leu Pro Pro Gly Leu Leu Ala Asn Phe Thr Leu Leu Arg Thr
 180 185 190
 Leu Asp Leu Gly Glu Asn Gln Leu Glu Thr Leu Pro Pro Asp Leu Leu
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 Arg Gly Pro Leu Gln Leu Glu Arg Leu His Leu Glu Gly Asn Lys Leu
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 Gln Val Leu Gly Lys Asp Leu Leu Leu Pro Gln Pro Asp Leu Arg Tyr
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 275 280 285
 Asp Met Arg Asp Gly Phe Asp Ile Ser Gly Asn Pro Trp Ile Cys Asp
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 Gln Asn Leu Ser Asp Leu Tyr Arg Trp Leu Gln Ala Gln Lys Asp Lys
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<210> 36

<211> 3087

<212> DNA

<213> Homo sapiens

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<222> (216)..(1283)

<400> 36

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<210> 37

<211> 356

<212> PRT

<213> Homo sapiens

<400> 37

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 35 40 45
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 65 70 75 80
 Arg Lys Phe Arg Gly Ser Lys Arg Ser Gln Ser Val Thr Arg Gly Glu
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 Lys Lys Ala Asn Asp Gly Glu Gly Gly Asp Glu Glu Ala Gly Thr Glu
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 Glu Ala Val Pro Arg Arg Asn Gly Ala Ala Gly Pro His Ser Pro Asp
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 Pro Leu Leu Asp Glu Gln Ala Phe Gly Asp Leu Thr Asp Leu Pro Val
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 Val Pro Lys Ala Thr Tyr Gly Leu Lys His Ala Glu Ser Ile Met Ser
 195 200 205
 Phe His Ile Asp Leu Gly Pro Ser Met Leu Gly Asp Val Leu Ser Ile
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 Met Asp Lys Glu Glu Trp Asp Pro Glu Glu Gly Glu Gly Gly Tyr His
 225 230 235 240
 Gly Asp Glu Gly Ala Ala Gly Thr Ile Thr Gln Ala Pro Pro Tyr Ala
 245 250 255
 Val Ala Ala Pro Pro Leu Ala Arg Gln Glu Gly Lys Ala Gly Pro Asp
 260 265 270

Leu Pro Ser Leu Pro Ser His Ala Leu Glu Asp Glu Gly Trp Ala Ala
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 Ala Ala Pro Ser Pro Gly Ser Ala Arg Ser Met Gly Ser His Thr Thr
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 Arg Asp Ser Ser Ser Leu Ser Ser Cys Thr Ser Gly Ile Leu Glu Glu
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<210> 38

<211> 3305

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (41).. (586)

<400> 38

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<210> 39

<211> 182

<212> PRT

<213> Homo sapiens

<400> 39

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 35 40 45
 Arg Gly Asp Leu Ala Asn Val Arg Val Gly Arg His Cys Val Val Lys
 50 55 60
 Ser Arg Ser Val Ile Arg Pro Pro Phe Lys Lys Phe Ser Lys Gly Val
 65 70 75 80
 Ala Phe Phe Pro Leu His Ile Gly Asp His Val Phe Ile Glu Glu Asp
 85 90 95
 Cys Val Val Asn Ala Ala Gln Ile Gly Ser Tyr Val His Val Gly Lys
 100 105 110
 Asn Cys Val Ile Gly Arg Arg Cys Val Leu Lys Asp Cys Cys Lys Ile
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 Leu Asp Asn Thr Val Leu Pro Pro Glu Thr Val Val Pro Pro Phe Thr
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 Val Phe Ser Gly Cys Pro Gly Leu Phe Ser Gly Glu Leu Pro Glu Cys
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Thr Gln Glu Leu Met Ile Asp Val Thr Lys Ser Tyr Tyr Gln Lys Phe
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 Leu Pro Leu Thr Gln Val
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<210> 40

<211> 2252

<212> DNA

<213> Homo sapiens

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<221> CDS

<222> (451).. (1269)

<400> 40

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<210> 41

<211> 273

<212> PRT

<213> Homo sapiens

<400> 41

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      35            40            45
Asn Glu Gly Ser Val Thr Gly Ser Cys Tyr Cys Gly Lys Arg Ile Ser
      50            55            60
Ser Asp Ser Pro Pro Ser Val Gln Phe Met Asn Arg Leu Arg Lys His
      65            70            75            80

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Leu Arg Ala Tyr His Arg Cys Leu Tyr Tyr Thr Arg Phe Gln Leu Leu
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 Met Ser Cys Leu Asp Leu Lys Glu Cys Gly His Ala Tyr Ser Gly Ile
 115 120 125
 Val Ala His Gln Lys His Leu Leu Pro Thr Ser Pro Pro Ile Ser Gln
 130 135 140
 Ala Ser Glu Gly Ala Ser Ser Asp Ile Leu Thr Pro Ala Gln Met Leu
 145 150 155 160
 Leu Ser Thr Leu Gln Ser Thr Gln Arg Pro Thr Leu Pro Val Gly Ser
 165 170 175
 Leu Ser Ser Asp Lys Glu Leu Thr Arg Pro Asn Glu Thr Thr Ile His
 180 185 190
 Thr Ala Gly His Ser Leu Ala Ala Gly Pro Glu Ala Gly Glu Asn Gln
 195 200 205
 Lys Gln Pro Glu Lys Asn Ala Gly Pro Thr Ala Arg Thr Ser Ala Thr
 210 215 220
 Val Pro Val Leu Cys Leu Leu Ala Ile Ile Phe Ile Leu Thr Ala Ala
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<210> 42

<211> 3119

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (94)..(1212)

<400> 42

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<210> 43

<211> 373

<212> PRT

<213> Homo sapiens

<400> 43

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			20					25					30		
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Thr	Phe	Ile	Ser	Tyr	Ser	Val	Thr	Phe	Lys	Asp	Asn	Phe	Arg	Gln	Gly
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 Ile Lys Thr Glu Tyr Pro Glu Lys Glu Val Thr Leu Ile His Ser Gln
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 195 200 205
 Val Ser Asn Leu Glu Glu Leu Pro Leu Asn Glu Tyr Arg Glu Tyr Ile
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 Lys Val Gln Thr Asp Lys Gly Thr Glu Val Ala Thr Asn Leu Val Ile
 225 230 235 240
 Leu Cys Thr Gly Ile Lys Ile Asn Ser Ser Ala Tyr Arg Lys Ala Phe
 245 250 255
 Glu Ser Arg Leu Ala Ser Ser Gly Ala Leu Arg Val Asn Glu His Leu
 260 265 270
 Gln Val Glu Gly His Ser Asn Val Tyr Ala Ile Gly Asp Cys Ala Asp
 275 280 285
 Val Arg Thr Pro Lys Met Ala Tyr Leu Ala Gly Leu His Ala Asn Ile
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 325 330 335
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<210> 44

<211> 3111

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (39).. (2762)

<400> 44

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<210> 45

<211> 908

<212> PRT

<213> Homo sapiens

<400> 45

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Lys	Cys	Leu	Asp	Ala	Val	Val	Ser	Thr	Arg	His	Glu	Met	Leu	Pro	Glu
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Phe	Tyr	Lys	Thr	Val	Ser	Pro	Ala	Leu	Ile	Ser	Arg	Phe	Lys	Glu	Arg
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Ile	Val	Lys	Ala	Leu	His	Lys	Gln	Met	Lys	Glu	Lys	Ser	Val	Lys	Thr
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Arg	Gln	Cys	Cys	Phe	Asn	Ile	Leu	Thr	Glu	Leu	Val	Asn	Val	Leu	Pro
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Ser	Cys	Leu	Tyr	Val	Ile	Leu	Cys	Asn	His	Ser	Pro	Gln	Val	Phe	His
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Pro	His	Val	Gln	Ala	Leu	Val	Pro	Pro	Val	Val	Ala	Cys	Val	Gly	Asp
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Pro	Phe	Tyr	Lys	Ile	Thr	Ser	Glu	Ala	Leu	Leu	Val	Thr	Gln	Gln	Leu
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Pro	Tyr	Ile	Lys	Asp	Leu	Phe	Thr	Cys	Thr	Ile	Lys	Arg	Leu	Lys	Ala
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 305 310 315 320
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 Asp Ala Val Leu Asp Glu Leu Pro Pro Leu Ile Ser Glu Ser Asp Met
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 Tyr Pro Ser Ser Leu Ser Lys Ile Ser Gly Ser Ile Leu Asn Glu Leu
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 Gly Gln Phe Ile Gln Asp Val Lys Asn Ser Arg Ser Thr Asp Ser Ile
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 690 695 700
 Leu Val Thr Phe Asn Ser Ala Ala His Asn Lys Pro Ser Leu Ile Arg
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 740 745 750
 Val Asp Asp Gly Leu Asp Ile Arg Lys Ala Ala Phe Glu Cys Met Tyr
 755 760 765
 Thr Leu Leu Asp Ser Cys Leu Asp Arg Leu Asp Ile Phe Glu Phe Leu
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 Asn His Val Glu Asp Gly Leu Lys Asp His Tyr Asp Ile Lys Met Leu
 785 790 795 800
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 820 825 830
 Thr Lys Val Lys Ala Asn Ser Val Lys Gln Glu Phe Glu Lys Gln Asp
 835 840 845

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 Pro Glu Ala Glu Lys Ser Pro Leu Met Ser Glu Phe Gln Ser Gln Ile
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<210> 46

<211> 1599

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (156).. (623)

<400> 46

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<210> 47

<211> 156

<212> PRT

<213> Homo sapiens

<400> 47

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			20					25					30		
Ala	Val	Ala	Val	Asp	Cys	Lys	Asp	Pro	Asp	Asp	Val	Val	Pro	Val	Gly
		35				40					45				
Gln	Arg	Arg	Ala	Trp	Cys	Trp	Cys	Met	Cys	Phe	Gly	Leu	Ala	Phe	Met
	50				55					60					
Leu	Ala	Gly	Val	Ile	Leu	Gly	Gly	Ala	Tyr	Leu	Tyr	Lys	Tyr	Phe	Ala
	65			70				75						80	
Leu	Gln	Pro	Asp	Asp	Val	Tyr	Tyr	Cys	Gly	Ile	Lys	Tyr	Ile	Lys	Asp
			85					90					95		
Asp	Val	Ile	Leu	Asn	Glu	Pro	Ser	Ala	Asp	Ala	Pro	Ala	Ala	Leu	Tyr
		100				105					110				
Gln	Thr	Ile	Glu	Glu	Asn	Ile	Lys	Ile	Phe	Glu	Lys	Lys	Lys	Leu	Asn
		115				120					125				
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<210> 48

<211> 3733

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (20)..(1000)

<400> 48

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<210> 49

<211> 327

<212> PRT

<213> Homo sapiens

<400> 49

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				20				25					30		
Phe	Ser	Ser	Leu	Ser	Pro	Met	Ala	Arg	Lys	Ile	Met	Gln	Asp	Lys	Glu
			35				40					45			
Lys	Ile	Arg	Glu	Lys	Tyr	Gly	Pro	Glu	Trp	Ala	Arg	Leu	Pro	Pro	Ala
	50					55					60				
Gln	Gln	Asp	Glu	Ile	Ile	Asp	Arg	Cys	Leu	Val	Gly	Pro	Arg	Ala	Pro
	65				70				75					80	
Ala	Pro	Arg	Asp	Pro	Gly	Asp	Ser	Glu	Glu	Leu	Thr	Arg	Phe	Pro	Gly
				85					90					95	
Leu	Arg	Gly	Pro	Thr	Gly	Gln	Lys	Val	Val	Arg	Phe	Gly	Asp	Glu	Asp
			100					105					110		
Leu	Thr	Trp	Gln	Asp	Glu	His	Ser	Ala	Pro	Phe	Ser	Trp	Glu	Thr	Lys
			115				120					125			
Ser	Gln	Met	Glu	Phe	Ser	Ile	Ser	Ala	Leu	Ser	Ile	Gln	Glu	Pro	Ser
		130				135					140				
Asn	Gly	Thr	Ala	Ala	Ser	Glu	Pro	Arg	Pro	Leu	Ser	Lys	Ala	Ser	Gln
	145				150					155				160	
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 Ile Asn Ala Glu Arg Ser Arg Gly Glu Gly Pro Glu Ala Glu Phe Gln
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 Leu Pro Pro Cys Tyr Arg Gln Glu Pro Ala Pro Lys Asp Arg Glu Ala
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 Lys Val Glu Arg Pro Ser Thr Leu Arg Gln Glu Gln Arg Pro Leu Pro
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 Asn Val Ser Thr Glu Arg Glu Arg Pro Gln Pro Val Gln Ala Phe Ser
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 Ser Ala Leu His Glu Ala Ala Pro Ser Gln Leu Glu Gly Lys Leu Pro
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 Ser Pro Asp Val Arg Gln Asp Asp Gly Glu Asp Thr Leu Phe Ser Glu
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<210> 50

<211> 1881

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (141).. (1214)

<400> 50

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<210> 51

<211> 358

<212> PRT

<213> Homo sapiens

<400> 51

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			20					25					30		
Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val	Ser
			35				40					45			
Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala	Ser
		50				55					60				
Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Arg	Arg	Gln	Glu	Ile	Pro	Glu	Asp
65				70						75				80	
Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala	Ala
				85					90					95	
Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn	Gly
			100					105					110		
Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala	Phe
		115					120					125			
Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu	Tyr
		130				135					140				
Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His	Gly
145				150						155				160	
Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys	Gly
			165					170					175		
Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu	Ala
			180					185					190		
Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser	Gly
		195					200					205			
Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser	Val
		210				215						220			
Asp	Gly	Gln	Ser	Thr	Ser	Pro	Ala	Thr	Pro	Ser	Pro	Asp	Ala	Ser	Thr
225				230						235				240	
Ser	Leu	Glu	Asp	Ser	Phe	Ala	His	Leu	Gln	Leu	Ser	Gly	Asp	Asn	Thr
			245					250				255			
Ala	Glu	Arg	Ser	His	Arg	Gly	Glu	Gly	Glu	Glu	Asp	His	Glu	Ser	Pro
		260					265					270			
Ser	Ser	Gly	Arg	Val	Pro	Ala	Pro	Asp	Thr	Ser	Ile	Glu	Glu	Thr	Glu
		275					280					285			

Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala Gln
 290 295 300
 His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln Thr
 305 310 315 320
 Val Pro Asp Arg Ser Asp Arg Leu Gly Thr Asp Arg Ser Val Ala Gly
 325 330 335
 Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly Gln
 340 345 350
 Cys Thr Val Thr Glu Val
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<210> 52

<211> 1824

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (208).. (1824)

<400> 52

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 tacaagacca cggatgacat cgtgaagggt gaagtctggg atgtagtaga caaaggaaaa 180
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 acccagtg cagtgtgcgt gctggggaac taccgggaca tggcgagca ccgagtcac 420
 ctgccggacg acgtgcgtga ctcatcgac aacctggaca gacctccagg ttctoctac 480
 ttccgctatg ctgagtttc catgaagaac agcttcggcc taaagtacct tcataagttc 540
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<210> 53

<211> 539

<212> PRT

<213> Homo sapiens

<400> 53

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Glu	Phe	Leu	Asp	Val	Tyr	Lys	Asn	Cys	Asn	Gly	Val	Val	Met	Met	Phe
			20					25				30			
Asp	Ile	Thr	Lys	Gln	Trp	Thr	Phe	Asn	Tyr	Ile	Leu	Arg	Glu	Leu	Pro
			35				40				45				
Lys	Val	Pro	Thr	His	Val	Pro	Val	Cys	Val	Leu	Gly	Asn	Tyr	Arg	Asp
			50			55				60					
Met	Gly	Glu	His	Arg	Val	Ile	Leu	Pro	Asp	Asp	Val	Arg	Asp	Phe	Ile
65					70				75					80	
Asp	Asn	Leu	Asp	Arg	Pro	Pro	Gly	Ser	Ser	Tyr	Phe	Arg	Tyr	Ala	Glu

	85		90		95
Ser Ser Met Lys Asn Ser Phe Gly Leu Lys Tyr Leu His Lys Phe Phe					
100		105		110	
Asn Ile Pro Ser Leu Gln Leu Gln Arg Glu Thr Leu Leu Arg Gln Leu					
115		120		125	
Glu Thr Asn Gln Leu Asp Met Asp Ala Thr Leu Glu Glu Leu Ser Val					
130		135		140	
Gln Gln Glu Thr Glu Asp Gln Asn Tyr Gly Ile Phe Leu Glu Met Met					
145		150		155	160
Glu Ala Arg Ser Arg Gly His Ala Ser Pro Leu Ala Ala Asn Gly Gln					
	165		170		175
Ser Pro Ser Pro Gly Ser Gln Ser Pro Val Val Pro Ala Gly Ala Val					
180		185		190	
Ser Thr Gly Ser Ser Ser Pro Gly Thr Pro Gln Pro Ala Pro Gln Leu					
195		200		205	
Pro Leu Asn Ala Ala Pro Pro Ser Ser Val Pro Pro Val Pro Pro Ser					
210		215		220	
Glu Ala Leu Pro Pro Pro Ala Cys Pro Ser Ala Pro Ala Pro Arg Arg					
225		230		235	240
Ser Ile Ile Ser Arg Leu Phe Gly Thr Ser Pro Ala Thr Glu Ala Ala					
	245		250		255
Pro Pro Pro Pro Glu Pro Val Pro Ala Ala Gln Gly Pro Ala Thr Val					
260		265		270	
Gln Ser Val Glu Asp Phe Val Pro Asp Asp Arg Leu Asp Arg Ser Phe					
275		280		285	
Leu Glu Asp Thr Thr Pro Ala Arg Asp Glu Lys Lys Val Gly Ala Lys					
290		295		300	
Ala Ala Gln Gln Asp Ser Asp Ser Asp Gly Glu Ala Leu Gly Gly Asn					
305		310		315	320
Pro Met Val Ala Gly Phe Gln Asp Asp Val Asp Leu Glu Asp Gln Pro					
	325		330		335
Arg Gly Ser Pro Pro Leu Pro Ala Gly Pro Val Pro Ser Gln Asp Ile					
340		345		350	
Thr Leu Ser Ser Glu Glu Glu Ala Glu Val Ala Ala Pro Thr Lys Gly					
355		360		365	
Pro Ala Pro Ala Pro Gln Gln Cys Ser Glu Pro Glu Thr Lys Trp Ser					

370	375	380
Ser Ile Pro Ala Ser Lys Pro Arg Arg Gly Thr Ala Pro Thr Arg Thr		
385	390	395
Ala Ala Pro Pro Trp Pro Gly Gly Val Ser Val Arg Thr Gly Pro Glu		400
	405	410
Lys Arg Ser Ser Thr Arg Pro Pro Ala Glu Met Glu Pro Gly Lys Gly		415
	420	425
Glu Gln Ala Ser Ser Ser Glu Ser Asp Pro Glu Gly Pro Ile Ala Ala		430
	435	440
Gln Met Leu Ser Phe Val Met Asp Asp Pro Asp Phe Glu Ser Glu Gly		445
	450	455
Ser Asp Thr Gln Arg Arg Ala Asp Asp Phe Pro Val Arg Asp Asp Pro		460
465	470	475
Ser Asp Val Thr Asp Glu Asp Glu Gly Pro Ala Glu Pro Pro Pro Pro		480
	485	490
Pro Lys Leu Pro Leu Pro Ala Phe Arg Leu Lys Asn Asp Ser Asp Leu		495
	500	505
Phe Gly Leu Gly Leu Glu Glu Ala Gly Pro Lys Glu Ser Ser Glu Glu		510
	515	520
Gly Lys Glu Gly Lys Thr Pro Ser Lys Glu Lys		525
	530	535

<210> 54

<211> 1518

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (8).. (1432)

<400> 54

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aatccagttt gaaagaaatt ttgatcggca gaaaagtcgc atcctgagtc tcagotggca 180

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gaagtgcacg gtgtgggggtg tcgccttctt gtccgatggc actatcataa gtgtggactc 360
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cgctaattgct gacgtgcagt ccattgctgt agctgaccaa gaagacagtt tcgtgggtggg 480
cacagccgag ggaacagtct tccattttca gctggtcctt gtgacatcta acagcagtga 540
gaagcagtgg gtgcggacaa aaccgttcca gcatcacact catgacgtgc gcactgtggc 600
ccacagccca acagcgtga tatctggagg cactgacacc cacttagtct ttcgtcctct 660
catggagaag gtggaagtaa agaattacga tgccgctctc cgaaaaatca ctttcccca 720
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1518

<210> 55

<211> 475

<212> PRT

<213> Homo sapiens

<400> 55

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          20             25             30
Gln Ile Thr Pro Asp Lys Ile Gln Phe Glu Arg Asn Phe Asp Arg Gln

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35	40	45
Lys Ser Arg Ile Leu Ser Leu Ser Trp His Pro Ser Gly Thr His Ile		
50	55	60
Ala Ala Gly Ser Ile Asp Tyr Ile Ser Val Phe Asp Val Lys Ser Gly		
65	70	75
Ser Ala Val His Lys Met Ile Val Asp Arg Gln Tyr Met Gly Val Ser		
85	90	95
Lys Arg Lys Cys Ile Val Trp Gly Val Ala Phe Leu Ser Asp Gly Thr		
100	105	110
Ile Ile Ser Val Asp Ser Ala Gly Lys Val Gln Phe Trp Asp Ser Ala		
115	120	125
Thr Gly Thr Leu Val Lys Ser His Leu Ile Ala Asn Ala Asp Val Gln		
130	135	140
Ser Ile Ala Val Ala Asp Gln Glu Asp Ser Phe Val Val Gly Thr Ala		
145	150	155
Glu Gly Thr Val Phe His Phe Gln Leu Val Pro Val Thr Ser Asn Ser		
165	170	175
Ser Glu Lys Gln Trp Val Arg Thr Lys Pro Phe Gln His His Thr His		
180	185	190
Asp Val Arg Thr Val Ala His Ser Pro Thr Ala Leu Ile Ser Gly Gly		
195	200	205
Thr Asp Thr His Leu Val Phe Arg Pro Leu Met Glu Lys Val Glu Val		
210	215	220
Lys Asn Tyr Asp Ala Ala Leu Arg Lys Ile Thr Phe Pro His Arg Cys		
225	230	235
Leu Ile Ser Cys Ser Lys Lys Arg Gln Leu Leu Leu Phe Gln Phe Ala		
245	250	255
His His Leu Glu Leu Trp Arg Leu Gly Ser Thr Val Ala Thr Gly Thr		
260	265	270
Val Glu Ala Met Cys Leu Leu Ala Val Ser Pro Asp Gly Asn Trp Leu		
275	280	285
Ala Ala Ser Gly Thr Ser Ala Gly Val His Val Tyr Asn Val Lys Gln		
290	295	300
Leu Lys Leu His Cys Thr Val Pro Ala Tyr Asn Phe Pro Val Thr Ala		
305	310	315
Met Ala Ile Ala Pro Asn Thr Asn Asn Leu Val Ile Ala His Ser Asp		

325	330	335
Gln Gln Val Phe Glu Tyr Ser Ile Pro Asp Lys Gln Tyr Thr Asp Trp		
340	345	350
Ser Arg Thr Val Gln Lys Gln Gly Phe His His Leu Trp Leu Gln Arg		
355	360	365
Asp Thr Pro Ile Thr His Ile Ser Phe His Pro Lys Arg Pro Met His		
370	375	380
Ile Leu Leu His Asp Ala Tyr Met Phe Cys Ile Ile Asp Lys Ser Leu		
385	390	395
Pro Leu Pro Asn Asp Lys Thr Leu Leu Tyr Asn Pro Phe Pro Pro Thr		
405	410	415
Asn Glu Ser Asp Val Ile Arg Arg Arg Thr Ala His Ala Phe Lys Ile		
420	425	430
Ser Lys Ile Tyr Lys Pro Leu Leu Phe Met Asp Leu Leu Asp Glu Arg		
435	440	445
Thr Leu Val Ala Val Glu Arg Pro Leu Asp Asp Ile Ile Ala Gln Leu		
450	455	460
Pro Pro Pro Ile Lys Lys Lys Lys Phe Gly Thr		
465	470	475

<210> 56

<211> 2176

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (26).. (709)

<400> 56

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actgcagccg ctgccgcca acctgcccgc agtcacctac atgcacatct acgagacgga 180
cggttcagc ctgggcgtgt tcctgtctaa gaggggcacg tccatccgcg tgcacgacca 240
ccggggcatg cacggcatgc tcaaggtgct gtacggcacc gtgcgcatca gctgcatgga 300

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<210> 57

<211> 228

<212> PRT

<213> Homo sapiens

<400> 57

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 20 25 30
 Leu Gln Pro Leu Pro Pro Asn Leu Pro Pro Val Thr Tyr Met His Ile
 35 40 45
 Tyr Glu Thr Asp Gly Phe Ser Leu Gly Val Phe Leu Leu Lys Ser Gly
 50 55 60
 Thr Ser Ile Pro Leu His Asp His Pro Gly Met His Gly Met Leu Lys
 65 70 75 80
 Val Leu Tyr Gly Thr Val Arg Ile Ser Cys Met Asp Lys Leu Asp Ala
 85 90 95
 Gly Gly Gly Gln Arg Pro Arg Ala Leu Pro Pro Glu Gln Gln Phe Glu
 100 105 110
 Pro Pro Leu Gln Pro Arg Glu Arg Glu Ala Val Arg Pro Gly Val Leu
 115 120 125
 Arg Ser Arg Ala Glu Tyr Thr Glu Ala Ser Gly Pro Cys Ile Leu Thr
 130 135 140
 Pro His Arg Asp Asn Leu His Gln Ile Asp Ala Val Glu Gly Pro Ala
 145 150 155 160
 Ala Phe Leu Asp Ile Leu Ala Pro Pro Tyr Asp Pro Asp Asp Gly Arg
 165 170 175
 Asp Cys His Tyr Tyr Arg Val Leu Glu Pro Val Arg Pro Lys Glu Ala
 180 185 190
 Ser Ser Ser Ala Cys Asp Leu Pro Arg Glu Val Trp Leu Leu Glu Thr
 195 200 205
 Pro Gln Ala Asp Asp Phe Trp Cys Glu Gly Glu Pro Tyr Pro Gly Pro
 210 215 220
 Lys Val Phe Pro
 225

<210> 58

<211> 2661

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (6).. (2045)

<400> 58

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<210> 59

<211> 680

<212> PRT

<213> Homo sapiens

<400> 59

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Gly	Pro	Leu	Pro	Pro	Ser	Leu	Pro	Pro	Val	Thr	Gly	Pro	Pro	Pro	Pro

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Thr Ser Ser Val Pro Thr Val Val Thr Thr Gly Ile His His Gln Pro			
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Pro Pro Ala Pro Pro Ser Leu Phe Thr Ala Asp Thr Tyr Asp Thr Asp			
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Tyr Arg His Arg Val His Ala Gln Arg Pro Asn Leu Ile Gly Leu Thr			
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Ser Gly Asp Met Asp Leu Pro Pro Arg Glu Lys Pro Pro Asn Lys Ser			
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Ser Gly Glu Pro Gly Val Pro Thr Lys Lys Thr Trp Phe Asp Lys Pro			
195	200	205	
Asn Phe Asn Arg Thr Asn Ser Pro Gly Phe Gln Lys Lys Val Gln Phe			
210	215	220	
Gly Asn Glu Asn Thr Lys Leu Glu Leu Arg Lys Val Pro Pro Glu Leu			
225	230	235	240
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245	250	255	
Val Asn Leu Gln Val Ala Tyr Asn Gly Asp Pro Glu Gly Ala Leu Ile			
260	265	270	
Gln Phe Ala Thr Tyr Glu Glu Ala Lys Lys Ala Ile Ser Ser Thr Glu			
275	280	285	
Ala Val Leu Asn Asn Arg Phe Ile Lys Val Tyr Trp His Arg Glu Gly			
290	295	300	
Ser Thr Gln Gln Leu Gln Thr Thr Ser Pro Lys Val Met Gln Pro Leu			
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Val Gln Gln Pro Ile Leu Pro Val Val Lys Gln Ser Val Lys Glu Arg			
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Leu Gly Pro Val Pro Ser Ser Thr Ile Glu Pro Ala Glu Ala Gln Ser			
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370	375	380
Leu Val Ser Thr Ser Ala Val Asp Asn Asn Glu Ala Gln Lys Lys Lys		
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Gln Glu Ala Leu Lys Leu Gln Gln Asp Val Arg Lys Arg Lys Gln Glu		400
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Ile Leu Glu Lys His Ile Glu Thr Gln Lys Met Leu Ile Ser Lys Leu		
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Thr Leu Glu Val Leu Thr Lys Asn Ile Thr Lys Leu Lys Asp Glu Val		
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Lys Ala Ala Ser Pro Gly Arg Cys Leu Pro Lys Ser Ile Lys Thr Lys		
465	470	475
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485	490	495
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Arg Gly Arg Gly Arg Gly Arg Gly Val Pro Gly His Ala Val Val Asp		
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His Arg Pro Arg Ala Leu Glu Ile Ser Ala Phe Thr Glu Ser Asp Arg		560
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Glu Asp Leu Leu Pro His Phe Ala Gln Tyr Gly Glu Ile Glu Asp Cys		
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Gln Ile Asp Asp Ser Ser Leu His Ala Val Ile Thr Phe Lys Thr Arg		
595	600	605
Ala Glu Ala Glu Ala Ala Ala Val His Gly Ala Arg Phe Lys Gly Gln		
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Asp Leu Lys Leu Ala Trp Asn Lys Pro Val Thr Asn Ile Ser Ala Val		
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Glu Thr Glu Glu Val Gly Pro Asp Glu Glu Glu Phe Gln Glu Glu Ser		640

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Leu	Gln	Asp	Asp	Asp	Glu
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<210> 60

<211> 2005

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (137).. (844)

<400> 60

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<210> 61

<211> 236

<212> PRT

<213> Homo sapiens

<400> 61

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			20					25						30	
Ser	Gly	Ser	Asn	Ser	Leu	Leu	Ser	Lys	Leu	Ile	His	Gln	Ser	Tyr	His
			35					40						45	
Gly	Thr	Met	Asp	Thr	Val	Ser	Leu	Ser	Gly	Thr	Ile	Pro	Val	Gln	Met
			50					55						60	
Leu	Leu	Glu	Ile	Gly	Leu	Asp	Lys	Leu	Lys	Lys	Asp	Tyr	Ile	Ser	Phe
			65					70						75	
Phe	Ile	Gly	Gln	Glu	Leu	Ala	Ser	Leu	Asn	His	Leu	Glu	Tyr	Phe	Ile
								85						90	
														95	
Ala	Pro	Ser	Val	Asp	Ile	Gln	Glu	Gln	Val	Tyr	Arg	Val	Gln	Lys	Leu

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His His Ile Leu Glu Ile Leu Val Ser Cys Met Pro Phe Ile Lys Ser		
115	120	125
Gln His Glu Leu Leu Phe Ser Leu Thr Gln Ile Cys Ile Lys Tyr Tyr		
130	135	140
Lys Gln Asn Pro Leu Asp Glu Gln His Ile Phe Gln Leu Pro Val Arg		
145	150	155
Pro Thr Ala Val Lys Asn Leu Tyr Gln Ser Glu Lys Pro Gln Lys Trp		
165	170	175
Arg Val Glu Ile Tyr Ser Gly Gln Lys Lys Ile Lys Thr Val Trp Gln		
180	185	190
Leu Ser Asp Ser Ser Pro Ile Asp His Leu Asn Phe His Lys Pro Asp		
195	200	205
Phe Ser Glu Leu Thr Leu Asn Gly Ser Leu Glu Glu Arg Ile Phe Phe		
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<210> 62

<211> 2279

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (97).. (1650)

<400> 62

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<210> 63

<211> 518

<212> PRT

<213> Homo sapiens

<400> 63

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      20              25              30
His Gly Leu Thr Met Leu Phe Glu His Met Ala Thr Asn Tyr Lys Leu
      35              40              45
Glu Phe Thr Ala Leu Val Val Phe Ser Ser Leu Trp Glu Leu Met Val
      50              55              60
Pro Phe Thr Arg Asp Tyr Asn Thr Leu Gln Glu Ala Leu Ser Asn Met
      65              70              75              80
Asp Asp Tyr Asp Lys Thr Cys Leu Glu Ser Ala Leu Val Gly Val Cys
      85              90              95
Asn Ile Val Gln Gln Glu Trp Gly Gly Ala Ile Pro Cys Gln Val Val
      100             105             110
Leu Val Thr Asp Gly Cys Leu Gly Ile Gly Arg Gly Ser Leu Arg His
      115             120             125
Ser Leu Ala Thr Gln Asn Gln Arg Ser Glu Ser Asn Arg Phe Pro Leu
      130             135             140
Pro Phe Pro Phe Pro Ser Lys Leu Tyr Ile Met Cys Met Ala Asn Leu
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Glu Glu Leu Gln Ser Thr Asp Ser Leu Glu Cys Leu Glu Arg Leu Ile
      165             170             175
Tyr Leu Asn Asn Gly Glu Gly Gln Ile Phe Thr Ile Asp Gly Pro Leu
      180             185             190
Cys Leu Lys Asn Val Gln Ser Met Phe Gly Lys Leu Ile Asp Leu Ala
      195             200             205
Tyr Thr Pro Phe His Ala Val Leu Lys Cys Gly His Leu Thr Ala Asp
      210             215             220
Val Gln Val Phe Pro Arg Pro Glu Pro Phe Val Val Asp Glu Glu Ile
      225             230             235             240
Asp Pro Ile Pro Lys Val Ile Asn Thr Asp Leu Glu Ile Val Gly Phe
      245             250             255
Ile Asp Ile Ala Asp Ile Ser Ser Pro Pro Val Leu Ser Arg His Leu

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Ile Thr Asp Asp Asn Glu Asp Glu Asn Ser Ala Asn Gln Ile Ala Gly		
290	295	300
Lys Ile Pro Asn Phe Cys Val Leu Leu His Gly Ser Leu Lys Val Glu		
305	310	315
Gly Met Val Ala Ile Val Gln Leu Gly Pro Glu Trp His Gly Met Leu		
325	330	335
Tyr Ser Gln Ala Asp Ser Lys Lys Lys Ser Asn Leu Met Met Ser Leu		
340	345	350
Phe Glu Pro Gly Pro Glu Pro Leu Pro Trp Leu Gly Lys Met Ala Gln		
355	360	365
Leu Gly Pro Ile Ser Asp Ala Lys Glu Asn Pro Tyr Gly Glu Asp Asp		
370	375	380
Asn Lys Ser Pro Phe Pro Leu Gln Pro Lys Asn Lys Arg Ser Tyr Ala		
385	390	395
Gln Asn Val Thr Val Trp Ile Lys Pro Ser Gly Leu Gln Thr Asp Val		
405	410	415
Gln Lys Ile Leu Arg Asn Ala Arg Lys Leu Pro Glu Lys Thr Gln Thr		
420	425	430
Phe Tyr Lys Glu Leu Asn Arg Leu Arg Lys Ala Ala Leu Ala Phe Gly		
435	440	445
Phe Leu Asp Leu Leu Lys Gly Val Ala Asp Met Leu Glu Arg Glu Cys		
450	455	460
Thr Leu Leu Pro Glu Thr Ala His Pro Asp Ala Ala Phe Gln Leu Thr		
465	470	475
His Ala Ala Gln Gln Leu Lys Leu Ala Ser Thr Gly Thr Ser Glu Tyr		
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<211> 2155

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (65)..(1405)

<400> 64

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<210> 65

<211> 447

<212> PRT

<213> Homo sapiens

<400> 65

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			20					25						30	
Leu	Asn	Glu	Leu	Val	Val	Gly	Asp	Thr	Ser	Gly	Lys	Val	Ser	Val	Tyr
		35					40						45		
Lys	Asn	Asp	Asp	Ser	Arg	Pro	Trp	Leu	Thr	Cys	Ser	Cys	Gln	Gly	Met
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Leu	Val	Ala	Val	Ser	Ala	Glu	Gly	Trp	Phe	His	Leu	Phe	Asp	Leu	Thr
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Pro	Ala	Lys	Val	Leu	Asp	Ala	Ser	Gly	His	His	Glu	Thr	Leu	Ile	Gly
		100					105						110		
Glu	Glu	Gln	Arg	Pro	Val	Phe	Lys	Gln	His	Ile	Pro	Ala	Asn	Thr	Lys
		115					120					125			
Val	Met	Leu	Ile	Ser	Asp	Ile	Asp	Gly	Asp	Gly	Cys	Arg	Glu	Leu	Val
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Val	Gly	Tyr	Thr	Asp	Arg	Val	Val	Arg	Ala	Phe	Arg	Trp	Glu	Glu	Leu

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Leu Gly Leu Pro Glu Leu Met Val Ser Gln Pro Gly Cys Ala Tyr Ala			
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Ile Leu Leu Cys Thr Trp Lys Lys Asp Thr Gly Ser Pro Pro Ala Ser			
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Glu Gly Pro Thr Asp Gly Ser Arg Glu Thr Pro Ala Ala Arg Asp Val			
225	230	235	240
Val Leu His Gln Thr Ser Gly Arg Ile His Asn Lys Asn Val Ser Thr			
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His Leu Ile Gly Asn Ile Lys Gln Gly His Gly Thr Glu Ser Ser Gly			
	260	265	270
Ser Gly Leu Phe Ala Leu Cys Thr Leu Asp Gly Thr Leu Lys Leu Met			
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His Gln Leu Phe Ala Leu Glu Lys Leu Asp Val Thr Gly Asn Gly His			
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Glu Glu Val Val Ala Cys Ala Trp Asp Gly Gln Thr Tyr Ile Ile Asp			
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His Asn Arg Thr Val Val Arg Phe Gln Val Asp Glu Asn Ile Arg Ala			
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Phe Cys Ala Gly Leu Tyr Ala Cys Lys Glu Gly Arg Asn Ser Pro Cys			
	355	360	365
Leu Val Tyr Val Thr Phe Asn Gln Lys Ile Tyr Val Tyr Trp Glu Val			
	370	375	380
Gln Leu Glu Arg Met Glu Ser Thr Asn Leu Val Lys Leu Leu Glu Thr			
385	390	395	400
Lys Pro Glu Tyr His Ser Leu Leu Gln Glu Leu Gly Val Asp Pro Asp			
	405	410	415
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435

440

445

<210> 66

<211> 1793

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (152).. (760)

<400> 66

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<210> 67

<211> 203

<212> PRT

<213> Homo sapiens

<400> 67

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			20					25						30	
Leu	Phe	Asn	Gly	Leu	Lys	Arg	Ala	Tyr	Ala	Cys	His	Ala	Glu	His	Glu
		35					40					45			
Asn	Asp	Ser	Asp	Asp	Asp	Asp	Glu	Ala	Glu	Asp	Asp	Asp	Glu	Thr	Glu
		50				55						60			
Glu	Leu	Gly	Ser	Asp	Glu	Asp	Asp	Ile	Asp	Glu	Asp	Gly	Gln	Glu	Tyr
	65				70					75				80	
Leu	Glu	Ile	Leu	Ala	Lys	Gln	Ala	Gly	Glu	Asp	Gly	Asp	Asp	Glu	Asp
			85						90					95	
Trp	Glu	Glu	Asp	Asp	Ala	Glu	Glu	Thr	Ala	Leu	Glu	Gly	Tyr	Ser	Thr
			100						105					110	
Ile	Ile	Asp	Asp	Glu	Asp	Asn	Pro	Val	Asp	Glu	Tyr	Gln	Ile	Phe	Lys
			115				120							125	
Ala	Ile	Phe	Gln	Thr	Ile	Gln	Asn	Arg	Asn	Pro	Val	Trp	Tyr	Gln	Ala
			130				135							140	
Leu	Thr	His	Gly	Leu	Asn	Glu	Glu	Gln	Arg	Lys	Gln	Leu	Gln	Asp	Ile
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Phe	Asn	Phe	Gly	Gly	Pro	Ala	Pro	Gly	Met	Asn					
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<210> 68

<211> 2160

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (115).. (1146)

<400> 68

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<210> 69

<211> 344

<212> PRT

<213> Homo sapiens

<400> 69

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Lys	Phe	Ser	Val	Glu	Ser	Ala	Ala	Leu	Val	Ala	Phe	Ser	Thr	Ser	Ser
				20				25						30	
Tyr	Ser	Cys	Gly	Arg	Lys	Lys	Lys	Val	Asn	Pro	Tyr	Glu	Glu	Val	Asp
				35				40						45	
Gln	Glu	Lys	Tyr	Ser	Asn	Leu	Val	Gln	Ser	Val	Leu	Ser	Ser	Arg	Gly
				50				55						60	
Val	Ala	Gln	Thr	Pro	Gly	Ser	Val	Glu	Glu	Asp	Ala	Leu	Leu	Cys	Gly
				65				70						75	
Pro	Val	Ser	Lys	His	Lys	Leu	Pro	Asn	Gln	Gly	Glu	Asp	Arg	Arg	Val

85	90	95
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Asn Ala Ser Asp Pro Ser Val Pro Leu Lys Ile Pro Leu Gln Arg Asn		
115	120	125
Val Ile Pro Ser Val Thr Arg Val Leu Gln Gln Thr Met Thr Lys Gln		
130	135	140
Gln Val Phe Leu Leu Glu Arg Trp Lys Gln Arg Met Ile Leu Glu Leu		
145	150	155
Gly Glu Asp Gly Phe Lys Glu Tyr Thr Ser Asn Val Phe Leu Gln Gly		
165	170	175
Lys Arg Phe His Glu Ala Leu Glu Ser Ile Leu Ser Pro Gln Glu Thr		
180	185	190
Leu Lys Glu Arg Asp Glu Asn Leu Leu Lys Ser Gly Tyr Ile Glu Ser		
195	200	205
Val Gln His Ile Leu Lys Asp Val Ser Gly Val Arg Ala Leu Glu Ser		
210	215	220
Ala Val Gln His Glu Thr Leu Asn Tyr Ile Gly Leu Leu Asp Cys Val		
225	230	235
Ala Glu Tyr Gln Gly Lys Leu Cys Val Ile Asp Trp Lys Thr Ser Glu		
245	250	255
Lys Pro Lys Pro Phe Ile Gln Ser Thr Phe Asp Asn Pro Leu Gln Val		
260	265	270
Val Ala Tyr Met Gly Ala Met Asn His Asp Thr Asn Tyr Ser Phe Gln		
275	280	285
Val Gln Cys Gly Leu Ile Val Val Ala Tyr Lys Asp Gly Ser Pro Ala		
290	295	300
His Pro His Leu Met Asp Ala Glu Leu Cys Ser Gln Tyr Trp Thr Lys		
305	310	315
Trp Leu Leu Arg Leu Glu Glu Tyr Thr Glu Lys Lys Lys Asn Gln Asn		
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<211> 1998

<212> DNA

<213> Homo sapiens

<400> 70

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<210> 71

<211> 1763

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (540).. (1529)

<400> 71

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<210> 72

<211> 330

<212> PRT

<213> Homo sapiens

<400> 72

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			20					25					30		
Gly	Gly	Ser	Leu	Leu	Gln	His	Val	Gly	Gly	Asp	His	Arg	Gly	His	Ser
		35					40					45			
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240	245	250	255
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Asp Ile Cys	Gly Arg Val Gly Gly Val Arg	Lys Ala Leu Lys	Leu Leu
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Cys Thr Ser	Gln Asn Tyr Gly Val Arg Ala Thr	Gly Gln Gln Cys	Thr
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Glu Ala Gly	Asp Ile Cys Ala Ile Cys Gln Ala	Glu Phe Arg Glu	Pro
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320	325	330	
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<211> 3493

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (40).. (396)

<400> 73

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<210> 74

<211> 119

<212> PRT

<213> Homo sapiens

<400> 74

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			20					25					30		
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Cys Tyr Ser Leu Leu Gly Met Glu Arg Ser Gly Thr Ala Val Gln Arg
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<210> 75

<211> 2654

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (98)..(1027)

<400> 75

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2654

<210> 76

<211> 310

<212> PRT

<213> Homo sapiens

<400> 76

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      35             40             45
Lys Gln Asp Thr Met Leu Lys Ala Met Phe Ser Gly Arg Met Glu Val
      50             55             60
Leu Thr Asp Ser Glu Gly Trp Ile Leu Ile Asp Arg Cys Gly Lys His
      65             70             75             80
Phe Gly Thr Ile Leu Asn Tyr Leu Arg Asp Gly Ala Val Pro Leu Pro
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Glu Ser Arg Arg Glu Ile Glu Glu Leu Leu Ala Glu Ala Lys Tyr Tyr
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Leu Val Gln Gly Leu Val Glu Glu Cys Gln Ala Ala Leu Gln Asn Lys
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Asp Thr Tyr Glu Pro Phe Cys Lys Val Pro Val Ile Thr Ser Ser Lys
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Leu Tyr Asn Arg Ser Asn Asn Lys Tyr Ser Tyr Thr Ser Asn Ser Asp
      165            170            175
Asp Asn Met Leu Lys Asn Ile Glu Leu Phe Asp Lys Leu Ser Leu Arg
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Phe Asn Gly Arg Val Leu Phe Ile Lys Asp Val Ile Gly Asp Glu Ile
      195            200            205
Cys Cys Trp Ser Phe Tyr Gly Gln Gly Arg Lys Ile Ala Glu Val Cys
      210            215            220
Cys Thr Ser Ile Val Tyr Ala Thr Glu Lys Lys Gln Thr Lys Val Glu
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<210> 77

<211> 2517

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (274).. (687)

<400> 77

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<210> 78

<211> 138

<212> PRT

<213> Homo sapiens

<400> 78

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His	Gln	Thr	Leu		
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Leu	Ser	Gly	Arg	Lys	Leu
Ser	Phe	Phe	Phe		
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Asp	Gly	Thr	Lys	Leu	Ser
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<210> 79

<211> 2901

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (91).. (1974)

<400> 79

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<210> 80

<211> 628

<212> PRT

<213> Homo sapiens

<400> 80

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Arg	Lys	His	Glu	Leu	Leu	Ala	Lys	Ala	Leu	His	Leu	Leu	Lys	Ser	Ser
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Cys	Ala	Pro	Ser	Val	Gln	Met	Lys	Ile	Lys	Glu	Leu	Tyr	Arg	Arg	Arg
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Phe	Pro	Arg	Lys	Thr	Leu	Gly	Pro	Ser	Asp	Leu	Ser	Leu	Leu	Ser	Leu
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Pro	Pro	Gly	Thr	Ser	Pro	Val	Gly	Ser	Pro	Gly	Pro	Leu	Ala	Pro	Ile
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Pro Ile Asn Ile Thr Pro Pro Ala Arg Leu Ser Ala Thr Val Pro Asn			
245	250	255	
Thr Ile Val Val Asn Trp Ser Ser Glu Phe Gly Arg Asn Tyr Ser Leu			
260	265	270	
Ser Val Tyr Leu Val Arg Gln Leu Thr Ala Gly Thr Leu Leu Gln Lys			
275	280	285	
Leu Arg Ala Lys Gly Ile Arg Asn Pro Asp His Ser Arg Ala Leu Ile			
290	295	300	
Lys Glu Lys Leu Thr Ala Asp Pro Asp Ser Glu Val Ala Thr Thr Ser			
305	310	315	320
Leu Arg Val Ser Leu Met Cys Pro Leu Gly Lys Met Arg Leu Thr Val			
325	330	335	
Pro Cys Arg Ala Leu Thr Cys Ala His Leu Gln Ser Phe Asp Ala Ala			
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Leu Tyr Leu Gln Met Asn Glu Lys Lys Pro Thr Trp Thr Cys Pro Val			
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Cys Asp Lys Lys Ala Pro Tyr Glu Ser Leu Ile Ile Asp Gly Leu Phe			
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Glu Asp Gly Ser Trp Cys Pro Met Lys Pro Lys Lys Glu Ala Ser Glu			
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Val Cys Pro Pro Pro Gly Tyr Gly Leu Asp Gly Leu Gln Tyr Ser Pro			
420	425	430	
Val Gln Gly Gly Asp Pro Ser Glu Asn Lys Lys Lys Val Glu Val Ile			
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Asp Leu Thr Ile Glu Ser Ser Ser Asp Glu Glu Asp Leu Pro Pro Thr			
450	455	460	
Lys Lys His Cys Ser Val Thr Ser Ala Ala II Pro Ala Leu Pro Gly			
465	470	475	480

Ser Lys Gly Val Leu Thr Ser Gly His Gln Pro Ser Ser Val Leu Arg
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 Ser Pro Ala Met Gly Thr Leu Gly Gly Asp Phe Leu Ser Ser Leu Pro
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 Leu His Glu Tyr Pro Pro Ala Phe Pro Leu Gly Ala Asp Ile Gln Gly
 515 520 525
 Leu Asp Leu Phe Ser Phe Leu Gln Thr Glu Ser Gln His Tyr Gly Pro
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 Ser Val Ile Thr Ser Leu Asp Glu Gln Asp Ala Leu Gly His Phe Phe
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 Gln Tyr Arg Gly Thr Pro Ser His Phe Leu Gly Pro Leu Ala Pro Thr
 565 570 575
 Leu Gly Ser Ser His Cys Ser Ala Thr Pro Ala Pro Pro Pro Gly Arg
 580 585 590
 Val Ser Ser Ile Val Ala Pro Gly Gly Ala Leu Arg Glu Gly His Gly
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 Gly Pro Leu Pro Ser Gly Pro Ser Leu Thr Gly Cys Arg Ser Asp Ile
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 Ile Ser Leu Asp
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<210> 81

<211> 2130

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (186).. (1262)

<400> 81

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<210> 82

<211> 359

<212> PRT

<213> Homo sapiens

<400> 82

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Thr Val Pro Glu Cys Ala Ile Cys Leu Gln Thr Cys Val His Pro Val
      35             40             45
Ser Leu Pro Cys Lys His Val Phe Cys Tyr Leu Cys Val Lys Gly Ala
      50             55             60
Ser Trp Leu Gly Lys Arg Cys Ala Leu Cys Arg Gln Glu Ile Pro Glu
      65             70             75             80
Asp Phe Leu Asp Lys Pro Thr Leu Leu Ser Pro Glu Glu Leu Lys Ala
      85             90             95
Ala Ser Arg Gly Asn Gly Glu Tyr Ala Trp Tyr Tyr Glu Gly Arg Asn
      100            105            110
Gly Trp Trp Gln Tyr Asp Glu Arg Thr Ser Arg Glu Leu Glu Asp Ala
      115            120            125
Phe Ser Lys Gly Lys Lys Asn Thr Glu Met Leu Ile Ala Gly Phe Leu
      130            135            140
Tyr Val Ala Asp Leu Glu Asn Met Val Gln Tyr Arg Arg Asn Glu His
      145            150            155            160
Gly Arg Arg Arg Lys Ile Lys Arg Asp Ile Ile Asp Ile Pro Lys Lys
      165            170            175
Gly Val Ala Gly Leu Arg Leu Asp Cys Asp Ala Asn Thr Val Asn Leu
      180            185            190
Ala Arg Glu Ser Ser Ala Asp Gly Ala Asp Ser Val Ser Ala Gln Ser
      195            200            205
Gly Ala Ser Val Gln Pro Leu Val Ser Ser Val Arg Pro Leu Thr Ser
      210            215            220
Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser
      225            230            235            240
Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn
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Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser
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 Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr
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 Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala
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 Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln
 305 310 315 320
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<210> 83

<211> 2748

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (250)..(1011)

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<210> 84

<211> 254

<212> PRT

<213> Homo sapiens

<400> 84

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Leu Lys Thr Leu Val Leu Ser Ser Ser Pro Thr Ser Pro Thr Gln Glu
      35             40             45
Pro Leu Pro Gly Gly Lys Thr Pro Phe Lys Lys Gly His Thr Arg Asn
      50             55             60
Lys Ser Thr Ser Ser Ala Met Ser Gly Ser His Gln Asp Leu Ser Val
      65             70             75             80
Ile Gln Pro Ile Val Lys Asp Cys Lys Glu Ala Asp Leu Ser Leu Tyr
      85             90             95
Asn Glu Phe Arg Leu Trp Lys Asp Glu Pro Thr Met Asp Arg Thr Cys
      100            105            110
Pro Phe Leu Asp Lys Ile Tyr Gln Glu Asp Ile Phe Pro Cys Leu Thr
      115            120            125
Phe Ser Lys Ser Glu Leu Ala Ser Ala Val Leu Glu Ala Val Glu Asn
      130            135            140
Asn Thr Leu Ser Ile Glu Pro Val Gly Leu Gln Pro Ile Arg Phe Val
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Lys Ala Ser Ala Val Glu Cys Gly Gly Pro Lys Lys Cys Ala Leu Thr
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Gly Gln Ser Lys Ser Cys Lys His Arg Ile Lys Leu Gly Asp Ser Ser
      180            185            190
Asn Tyr Tyr Tyr Ile Ser Pro Phe Cys Arg Tyr Arg Ile Thr Ser Val
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Cys Asn Phe Phe Thr Tyr Ile Arg Tyr Ile Gln Gln Gly Leu Val Lys
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<220>
 <221> CDS
 <222> (265).. (2031)

<400> 85					
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<210> 86

<211> 589

<212> PRT

<213> Homo sapiens

<400> 86

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<213> Homo sapiens

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<222> (197)..(496)

<400> 87

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<211> 100

<212> PRT

<213> Homo sapiens

<400> 88

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			20				25					30			
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<213> Homo sapiens

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<222> (42)..(1883)

<400> 89

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<210> 90

<211> 614

<212> PRT

<213> Homo sapiens

<400> 90

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			20				25				30				
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Ser Ser Met Lys Asn Ser Phe Gly Leu Lys Tyr Leu His Lys Phe Phe		95
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130	135	140
Gln Gln Glu Thr Glu Asp Gln Asn Tyr Gly Ile Phe Leu Glu Met Met		
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Glu Ala Arg Ser Arg Gly His Ala Ser Pro Leu Ala Ala Asn Gly Gln		160
	165	170
Ser Pro Ser Pro Gly Ser Gln Ser Pro Val Val Pro Ala Gly Ala Val		175
180	185	190
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Pro Leu Asn Ala Ala Pro Pro Ser Ser Val Pro Pro Val Pro Pro Ser		
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225	230	235
Ser Ile Ile Ser Arg Leu Phe Gly Thr Ser Pro Ala Thr Glu Ala Ala		240
	245	250
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Leu Glu Asp Thr Thr Pro Ala Arg Asp Glu Lys Lys Val Gly Ala Lys		
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Pro Met Val Ala Gly Phe Gln Asp Asp Val Asp Leu Glu Asp Gln Pro		320
	325	330
Arg Gly Ser Pro Pro Leu Pro Ala Gly Pro Val Pro Ser Gln Asp Ile		335

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Lys Arg Ser Ser Thr Arg Pro Pro Ala Glu Met Glu Pro Gly Lys Gly		
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Gln Met Leu Ser Phe Val Met Asp Asp Pro Asp Phe Glu Ser Glu Gly		
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Ser Asp Thr Gln Arg Arg Ala Asp Asp Phe Pro Val Arg Asp Asp Pro		
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<210> 91

<211> 3133

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (113).. (1879)

<400> 91

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<211> 589

<212> PRT

<213> Homo sapiens

<400> 92

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			20					25					30		
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Glu	Val	Phe	Ser	Asn	Ser	Ser	Ser	Cys	Glu	Leu	Thr	Gly	Ser	Gly	Ser
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Trp	Asn	Asn	Met	Leu	Lys	Leu	Gly	Asn	Lys	Ser	Pro	Asn	Gly	Ile	Ser
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Gln Asp Glu Ile Leu Ser Ser Ala Phe Lys Leu Arg Ile Thr Arg Gly			
385	390	395	400
Asp Ile His Thr Leu Lys Asn Tyr His Trp Leu Asn Asp Glu Val Ile			
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Asn Phe Tyr Met Asn Leu Leu Val Glu Arg Asn Lys Lys Gln Gly Tyr			
	420	425	430
Pro Ala Leu His Val Phe Ser Thr Phe Phe Tyr Pro Lys Leu Lys Ser			
	435	440	445
Gly Gly Tyr Gln Ala Val Lys Arg Trp Thr Lys Gly Val Asn Leu Phe			
	450	455	460
Glu Gln Glu Ile Ile Leu Val Pro Ile His Arg Lys Val His Trp Ser			
465	470	475	480
Leu Val Val Ile Asp Leu Arg Lys Lys Cys Leu Lys Tyr Leu Asp Ser			
	485	490	495
Met Gly Gln Lys Gly His Arg Ile Cys Glu Ile Leu Leu Gln Tyr Leu			
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Gln Asp Glu Ser Lys Thr Lys Arg Asn Ser Asp Leu Asn Leu Leu Glu			
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Trp Thr His His Ser Met Lys Pro His Glu Ile Pro Gln Gln Leu Asn			
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545	550	555	560
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<210> 93

<211> 2987

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (145).. (1926)

<400> 93

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<210> 94

<211> 594

<212> PRT

<213> Homo sapiens

<400> 94

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Thr	Pro	His	Ser	Ser	Tyr	Gly	Leu	Cys	Thr	Ser	Thr	Pro	Val	Trp	Ser
	50					55					60				
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Leu	Ile	Thr	Glu	Met	Glu	Ala	Cys	Ile	Ser	Val	Leu	Pro	Thr	Val	Ser
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Gln	Leu	Arg	Glu	Gln	Gln	Lys	Thr	Gln	Lys	Pro	Ser	Gly	Ala	Val	Asp
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Glu	Ala	Leu	Val	Asn	Val	Lys	Ser	Ser	Gln	Phe	Lys	Leu	Glu	Thr	Ala
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 Ile Lys Asn Glu Glu Thr Ile Glu Pro Asp Lys Thr Tyr Glu Asn Val
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 Lys Leu Cys Thr Pro Val Ile Cys Ser Ser Ser Thr Lys Glu Ala Glu
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 Asp Ala Pro Glu Lys Leu Ser Arg Ala Ser Asp Met Lys Asp Thr Gln
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585

590

Glu Lys

<210> 95

<211> 2534

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (84).. (1550)

<400> 95

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<211> 489

<212> PRT

<213> Homo sapiens

<400> 96

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				20			25						30		
His	Gly	Glu	Leu	His	Pro	Ser	Glu	Gly	Pro	Trp	Gly	Ala	Pro	Arg	Glu

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Ser Ser His Ala Arg Ser His Leu Arg Gln Met Gly Val Thr Glu Trp		
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100	105	110
Lys Ser Lys Pro Cys Leu Ile Lys Lys Glu Pro Pro Ala Gly Asp Leu		
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Pro Arg Pro Pro Gln Thr Ser Leu Val Lys Phe Val Gly Asn Ile Tyr					
	420		425		430
Thr Leu Lys Cys Arg Phe Cys Glu Val Glu Phe Gln Gly Pro Leu Ser					
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Ile Gln Glu Glu Trp Val Arg His Leu Gln Arg His Ile Leu Glu Met					
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<211> 3741

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<400> 97

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<210> 98

<211> 261

<212> PRT

<213> Homo sapiens

<400> 98

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25

30

Met Ser Glu Leu Val Ser Asn Gly Val Gln Ile Tyr Gln Phe Pro Thr
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 Glu Asn His Cys Asp Phe Val Lys Leu Arg Glu Met Leu Ile Arg Val
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 Asn Asn Phe Gln Lys Lys Lys Ala Ala Ala Gln Leu Leu Gln Ser Gln
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<210> 99

<211> 3389

<212> DNA

<213> Homo sapiens

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<221> CDS

<222> (78).. (1466)

<400> 99

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<211> 463

<212> PRT

<213> Homo sapiens

<400> 100

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Arg Pro Thr Asp Arg Pro Ile Pro Pro Arg Asp Glu Val Phe Glu Tyr			
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Ile Ile Phe Arg Gly Ser Asp Ile Lys Asp Leu Thr Val Cys Glu Pro			
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Pro Lys Pro Gln Cys Ser Leu Pro Gln Asp Pro Ala Ile Val Gln Ser			
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Pro Phe Gly Arg Met Pro Thr Tyr Ser Gln Phe Ser Pro Ser Ser Leu			
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Val Gly Gln Gln Phe Gly Ala Val Gly Val Ala Gly Ser Ser Leu Thr			
130	135	140	
Ser Phe Gly Thr Glu Thr Ser Asn Ser Gly Thr Leu Pro Gln Ser Ser			
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Ala Val Gly Ser Ala Phe Thr Gln Asp Thr Arg Ser Leu Lys Thr Gln			
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Leu Ser Gln Gly Arg Ser Ser Pro Gln Leu Asp Pro Leu Arg Lys Ser			
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Pro Thr Met Glu Gln Ala Val Gln Thr Ala Ser Ala His Leu Pro Ala			
195	200	205	
Pro Ala Ala Val Gly Arg Arg Ser Pro Val Ser Thr Arg Pro Leu Pro			
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Ser Ala Ser Gln Lys Ala Gly Glu Asn Gln Glu His Arg Gln Ala Glu			
225	230	235	240
Val His Lys Val Ser Arg Pro Glu Asn Glu Gln Leu Arg Asn Asp Asn			
245	250	255	
Lys Arg Gln Val Ala Pro Gly Ala Pro Ser Ala Pro Arg Arg Gly Arg			
260	265	270	
Gly Gly His Arg Gly Gly Arg Gly Arg Phe Gly Ile Arg Arg Asp Gly			
275	280	285	
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290	295	300
Phe Asn Lys Glu Glu Ile Asp Arg Glu Phe His Asn Lys Leu Lys Leu		
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Lys Glu Asp Lys Leu Glu Lys Gln Glu Lys Pro Val Asn Gly Glu Asp		320
	325	330
Lys Gly Asp Ser Gly Val Asp Thr Gln Asn Ser Glu Gly Asn Ala Asp		335
	340	345
Glu Glu Asp Pro Leu Gly Pro Asn Cys Tyr Tyr Asp Lys Thr Lys Ser		350
	355	360
Phe Phe Asp Asn Ile Ser Cys Asp Asp Asn Arg Glu Arg Arg Pro Thr		365
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Trp Ala Glu Glu Arg Arg Leu Asn Ala Glu Thr Phe Gly Ile Pro Leu		380
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Arg Pro Asn Arg Gly Arg Gly Gly Tyr Arg Gly Arg Gly Gly Leu Gly		395
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Phe Arg Gly Gly Arg Gly Arg Gly Gly Gly Arg Gly Gly Thr Phe Thr		415
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<210> 101

<211> 2284

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (128).. (1936)

<400> 101

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<211> 603

<212> PRT

<213> Homo sapiens

<400> 102

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Arg Glu Ala Gly Arg Ile Pro Arg Thr Ile Glu Cys Glu Leu Val His
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Asp Leu Val Asp Ser Cys Val Pro Gly Asp Thr Val Thr Ile Thr Gly
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Ile Val Lys Val Ser Asn Ala Glu Glu Gly Ser Arg Asn Lys Asn Asp
             100            105            110
Lys Cys Met Phe Leu Leu Tyr Ile Glu Ala Asn Ser Ile Ser Asn Ser
             115            120            125
Lys Gly Gln Lys Thr Lys Ser Ser Glu Asp Gly Cys Lys His Gly Met
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Leu Met Glu Phe Ser Leu Lys Asp Leu Tyr Ala Ile Gln Glu Ile Gln
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Ala Glu Glu Asn Leu Phe Lys Leu Ile Val Asn Ser Leu Cys Pro Val
             165            170            175
Ile Phe Gly His Glu Leu Val Lys Ala Gly Leu Ala Leu Ala Leu Phe
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<210> 103

<211> 3408

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (725).. (1513)

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<210> 104

<211> 263

<212> PRT

<213> Homo sapiens

<400> 104

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			20					25						30	
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			35					40						45	
Ile	Asn	Ala	Lys	Arg	Val	Tyr	Arg	Ile	Met	Arg	Gln	Asn	Ala	Leu	Leu
			50				55					60			
Leu	Glu	Arg	Lys	Pro	Ala	Val	Pro	Pro	Ser	Lys	Arg	Ala	His	Thr	Gly
			65			70				75				80	
Arg	Val	Ala	Val	Lys	Glu	Ser	Asn	Gln	Arg	Trp	Cys	Ser	Asp	Gly	Phe
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Asp	Cys	Cys	Asp	Arg	Glu	Ala	Leu	His	Trp	Ala	Val	Thr	Thr	Gly	Gly
				115				120						125	
Phe	Asn	Ser	Glu	Thr	Val	Gln	Asp	Val	Met	Leu	Gly	Ala	Val	Glu	Arg
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 165 170 175
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 Gly Ile Ala Glu Ser Phe Val Lys Thr Ile Lys Arg Asp Tyr Ile Ser
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<210> 105

<211> 3338

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (201).. (1904)

<400> 105

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<210> 106

<211> 568

<212> PRT

<213> Homo sapiens

<400> 106

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			20					25					30		
Cys	Asp	Val	Thr	Leu	Arg	Val	Glu	Gln	Lys	Asp	Phe	Pro	Ala	His	Arg
		35					40				45				
Ile	Val	Leu	Ala	Ala	Cys	Ser	Asp	Tyr	Phe	Cys	Ala	Met	Phe	Thr	Ser
		50				55					60				
Glu	Leu	Ser	Glu	Lys	Gly	Lys	Pro	Tyr	Val	Asp	Ile	Gln	Gly	Leu	Thr
	65				70				75					80	
Ala	Ser	Thr	Met	Glu	Ile	Leu	Leu	Asp	Phe	Val	Tyr	Thr	Glu	Thr	Val
				85					90					95	
His	Val	Thr	Val	Glu	Asn	Val	Gln	Glu	Leu	Leu	Pro	Ala	Ala	Cys	Leu
			100						105					110	
Leu	Gln	Leu	Lys	Gly	Val	Lys	Gln	Ala	Cys	Cys	Glu	Phe	Leu	Glu	Ser
		115					120						125		
Gln	Leu	Asp	Pro	Ser	Asn	Cys	Leu	Gly	Ile	Arg	Asp	Phe	Ala	Glu	Thr

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145	150	155
His Phe Pro Glu Val	Val Gln His Glu Glu Phe Ile Leu Leu Ser Gln	160
165	170	175
Gly Glu Val Glu Lys Leu Ile Lys Cys Asp Glu Ile Gln Val	Asp Ser	
180	185	190
Glu Glu Pro Val Phe Glu Ala Val Ile Asn Trp Val Lys His Ala Lys		
195	200	205
Lys Glu Arg Glu Glu Ser Leu Pro Asn Leu Leu Gln Tyr Val Arg Met		
210	215	220
Pro Leu Leu Thr Pro Arg Tyr Ile Thr Asp Val Ile Asp Ala Glu Pro		
225	230	235
Phe Ile Arg Cys Ser Leu Gln Cys Arg Asp Leu Val Asp Glu Ala Lys		240
245	250	255
Lys Phe His Leu Arg Pro Glu Leu Arg Ser Gln Met Gln Gly Pro Arg		
260	265	270
Thr Arg Ala Arg Leu Gly Ala Asn Glu Val Leu Leu Val Val Gly Gly		
275	280	285
Phe Gly Ser Gln Gln Ser Pro Ile Asp Val Val Glu Lys Tyr Asp Pro		
290	295	300
Lys Thr Gln Glu Trp Ser Phe Leu Pro Ser Ile Thr Arg Lys Arg Arg		
305	310	315
Tyr Val Ala Ser Val Ser Leu His Asp Arg Ile Tyr Val Ile Gly Gly		320
325	330	335
Tyr Asp Gly Arg Ser Arg Leu Ser Ser Val Glu Cys Leu Asp Tyr Thr		
340	345	350
Ala Asp Glu Asp Gly Val Trp Tyr Ser Val Ala Pro Met Asn Val Arg		
355	360	365
Arg Gly Leu Ala Gly Ala Thr Thr Leu Gly Asp Met Ile Tyr Val Ser		
370	375	380
Gly Gly Phe Asp Gly Ser Arg Arg His Thr Ser Met Glu Arg Tyr Asp		
385	390	395
Pro Asn Ile Asp Gln Trp Ser Met Leu Gly Asp Met Gln Thr Ala Arg		400
405	410	415
Glu Gly Ala Gly Leu Val Val Ala Ser Gly Val Ile Tyr Cys Leu Gly		

420 425 430
 Gly Tyr Asp Gly Leu Asn Ile Leu Asn Ser Val Glu Lys Tyr Asp Pro
 435 440 445
 His Thr Gly His Trp Thr Asn Val Thr Pro Met Ala Thr Lys Arg Ser
 450 455 460
 Gly Ala Gly Val Ala Leu Leu Asn Asp His Ile Tyr Val Val Gly Gly
 465 470 475 480
 Phe Asp Gly Thr Ala His Leu Ser Ser Val Glu Ala Tyr Asn Ile Arg
 485 490 495
 Thr Asp Ser Trp Thr Thr Val Thr Ser Met Thr Thr Pro Arg Cys Tyr
 500 505 510
 Val Gly Ala Thr Val Leu Arg Gly Arg Leu Tyr Ala Ile Ala Gly Tyr
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 Asp Ser Trp Glu Val Val Thr Ser Met Gly Thr Gln Arg Cys Asp Ala
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<210> 107

<211> 2925

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (72)..(1160)

<400> 107

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<210> 108

<211> 363

<212> PRT

<213> Homo sapiens

<400> 108

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Thr Ile Arg Gly Leu Pro Lys Gly Asn Arg Pro Val Ile Leu Thr Tyr
      35             40             45
His Asp Ile Gly Leu Asn His Lys Ser Cys Ser Asn Ala Phe Phe Asn
      50             55             60
Phe Glu Asp Met Gln Glu Ile Thr Gln His Phe Ala Val Cys His Val
      65             70             75             80
Asp Ala Pro Gly Gln Gln Glu Gly Ala Pro Ser Phe Pro Thr Gly Tyr
      85             90             95
Gln Tyr Pro Thr Met Asp Glu Leu Ala Glu Met Leu Pro Pro Val Leu
      100            105            110
Thr His Leu Ser Leu Lys Ser Ile Ile Gly Ile Gly Val Gly Ala Gly
      115            120            125
Ala Tyr Ile Leu Ser Arg Phe Ala Leu Asn His Pro Glu Leu Val Glu
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Gly Leu Val Leu Ile Asn Val Asp Pro Cys Ala Lys Gly Trp Ile Asp
      145            150            155            160

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 Asn Leu Gln Leu Phe Leu Asn Ser Tyr Asn Gly Arg Arg Asp Leu Glu
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 245 250 255
 Ala Val Val Glu Cys Asn Ser Arg Leu Asn Pro Ile Asn Thr Thr Leu
 260 265 270
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 275 280 285
 Lys Leu Thr Glu Ala Phe Lys Tyr Phe Leu Gln Gly Met Gly Tyr Ile
 290 295 300
 Pro Ser Ala Ser Met Thr Arg Leu Ala Arg Ser Arg Thr His Ser Thr
 305 310 315 320
 Ser Ser Ser Leu Gly Ser Gly Glu Ser Pro Phe Ser Arg Ser Val Thr
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<210> 109

<211> 2677

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (240).. (1001)

<400> 109

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<211> 254

<212> PRT

<213> Homo sapiens

<400> 110

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			20				25						30		
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Ile	Gln	Pro	Ile	Val	Lys	Asp	Cys	Lys	Glu	Ala	Asp	Leu	Ser	Leu	Tyr
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Pro	Phe	Leu	Asp	Lys	Ile	Tyr	Gln	Glu	Asp	Ile	Phe	Pro	Cys	Leu	Thr
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Gly Gln Ser Lys Ser Cys Lys His Arg Ile Lys Leu Gly Asp Ser Ser			
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Asn Tyr Tyr Tyr Ile Ser Pro Phe Cys Arg Tyr Arg Ile Thr Ser Val			
	195	200	205
Cys Asn Phe Phe Thr Tyr Ile Arg Tyr Ile Gln Gln Gly Leu Val Lys			
	210	215	220
Gln Gln Asp Val Asp Gln Met Phe Trp Glu Val Met Gln Leu Arg Lys			
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<210> 111

<211> 3448

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (104).. (1057)

<400> 111

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<210> 112

<211> 318

<212> PRT

<213> Homo sapiens

<400> 112

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			20						25					30	
Ser	Leu	Asp	Asp	Ile	Ile	Lys	Leu	Asn	Arg	Lys	Glu	Gly	Lys	Lys	Gln
		35					40					45			
Asn	Phe	Pro	Arg	Leu	Asn	Arg	Arg	Leu	Leu	Gln	Gln	Ser	Gly	Ala	Gln
	50					55					60				
Gln	Phe	Arg	Met	Arg	Val	Arg	Trp	Gly	Ile	Gln	Gln	Asn	Ser	Gly	Phe
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Arg	Pro	Asn	Gly	Val	Ile	Thr	Gly	Leu	Ala	Ala	Arg	Lys	Thr	Thr	Gly
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Ile	Arg	Lys	Gly	Ile	Ser	Pro	Met	Asn	Arg	Pro	Pro	Leu	Ser	Asp	Lys

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165	170	175
Gly Asn Lys Leu Asn His Gln Lys Asp Thr Arg Gln Ala Thr Phe Leu		
180	185	190
Phe Arg Arg Gly Leu Lys Val Gln Ala Gln Leu Asn Thr Glu Gln Leu		
195	200	205
Leu Asp Asp Val Val Ala Lys Arg Thr Arg Gln Trp Arg Thr Ser Thr		
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225	230	235
Gln Cys Pro Val Thr Gln Lys Pro Arg Leu Thr Arg Thr Ala Val Pro		
245	250	255
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260	265	270
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275	280	285
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<210> 113

<211> 3388

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (395).. (2773)

<400> 113

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<211> 793

<212> PRT

<213> Homo sapiens

<400> 114

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			20						25					30	
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 85 90 95
 Asp Lys Tyr Gly Glu Lys Gly Leu Glu Asp Asn Gln Gly Gly Gln Tyr
 100 105 110
 Glu Ser Trp Asn Tyr Tyr Arg Tyr Asp Phe Gly Ile Tyr Asp Asp Asp
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 Pro Glu Ile Ile Thr Leu Glu Arg Arg Glu Phe Asp Ala Ala Val Asn
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 Leu Thr Pro Thr Thr Phe Asn Glu Leu Val Thr Gln Arg Lys His Asn
 565 570 575
 Glu Val Trp Met Val Asp Phe Tyr Ser Pro Trp Cys His Pro Cys Gln
 580 585 590
 Val Leu Met Pro Glu Trp Lys Arg Met Ala Arg Thr Leu Thr Gly Leu
 595 600 605
 Ile Asn Val Gly Ser Ile Asp Cys Gln Gln Tyr His Ser Phe Cys Ala
 610 615 620

Gln Glu Asn Val Gln Arg Tyr Pro Glu Ile Arg Phe Phe Pro Pro Lys
 625 630 635 640
 Ser Asn Lys Ala Tyr His Tyr His Ser Tyr Asn Gly Trp Asn Arg Asp
 645 650 655
 Ala Tyr Ser Leu Arg Ile Trp Gly Leu Gly Phe Leu Pro Gln Val Ser
 660 665 670
 Thr Asp Leu Thr Pro Gln Thr Phe Ser Glu Lys Val Leu Gln Gly Lys
 675 680 685
 Asn His Trp Val Ile Asp Phe Tyr Ala Pro Trp Cys Gly Pro Cys Gln
 690 695 700
 Asn Phe Ala Pro Glu Phe Glu Leu Leu Ala Arg Met Ile Lys Gly Lys
 705 710 715 720
 Val Lys Ala Gly Lys Val Asp Cys Gln Ala Tyr Ala Gln Thr Cys Gln
 725 730 735
 Lys Ala Gly Ile Arg Ala Tyr Pro Thr Val Lys Phe Tyr Phe Tyr Glu
 740 745 750
 Arg Ala Asn Arg Asn Phe Gln Glu Glu Gln Ile Asn Thr Arg Asp Ala
 755 760 765
 Lys Ala Ile Ala Ala Leu Ile Ser Glu Lys Leu Glu Thr Leu Arg Asn
 770 775 780
 Gln Gly Lys Arg Asn Lys Asp Glu Leu
 785 790

<210> 115

<211> 1286

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (32).. (1171)

<400> 115

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ctactgcgcc aagctotgcg agccgcagtg gttttatgaa gaaacagaaa gcagtgatga 180
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tcagaaaagca ctgcaggagt attccagtat ctctgaaaaa ttgtcatcaa ccaattttgc 300
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ggaggcgctg gagattgctg caaacttgga aaataaagca accaacacag accatttaac 420
cacggtactc tacctocagc ttgctatttg ttcaagtttg cagaacttgg agaaaacaat 480
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acagcacagt ttcaacctca gtgacaaaac tatcaaatcc ttctttccac actcaggaaa 660
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<210> 116

<211> 380

<212> PRT

<213> Homo sapiens

<400> 116

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Phe Glu Glu Arg Pro Glu Arg Arg Ser Gly Pro Pro Ala Ser Tyr Cys
      20             25            30
Ala Lys Leu Cys Glu Pro Gln Trp Phe Tyr Glu Glu Thr Glu Ser Ser
      35             40            45
Asp Asp Val Glu Val Leu Thr Leu Lys Lys Phe Lys Gly Asp Leu Ala
      50             55            60

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Tyr Arg Arg Gln Glu Tyr Gln Lys Ala Leu Gln Glu Tyr Ser Ser Ile
 65 70 75 80
 Ser Glu Lys Leu Ser Ser Thr Asn Phe Ala Met Lys Arg Asp Val Gln
 85 90 95
 Glu Gly Gln Ala Arg Cys Leu Ala His Leu Gly Arg His Met Glu Ala
 100 105 110
 Leu Glu Ile Ala Ala Asn Leu Glu Asn Lys Ala Thr Asn Thr Asp His
 115 120 125
 Leu Thr Thr Val Leu Tyr Leu Gln Leu Ala Ile Cys Ser Ser Leu Gln
 130 135 140
 Asn Leu Glu Lys Thr Ile Phe Cys Leu Gln Lys Leu Ile Ser Leu His
 145 150 155 160
 Pro Phe Asn Pro Trp Asn Trp Gly Lys Leu Ala Glu Ala Tyr Leu Asn
 165 170 175
 Leu Gly Pro Ala Leu Ser Ala Ala Leu Ala Ser Ser Gln Lys Gln His
 180 185 190
 Ser Phe Thr Ser Ser Asp Lys Thr Ile Lys Ser Phe Phe Pro His Ser
 195 200 205
 Gly Lys Asp Cys Leu Leu Cys Phe Pro Glu Thr Leu Pro Glu Ser Ser
 210 215 220
 Leu Phe Ser Val Glu Ala Asn Ser Ser Asn Ser Gln Lys Asn Glu Lys
 225 230 235 240
 Ala Leu Thr Asn Ile Gln Asn Cys Met Ala Glu Lys Arg Glu Thr Val
 245 250 255
 Leu Ile Glu Thr Gln Leu Lys Ala Cys Ala Ser Phe Ile Arg Thr Arg
 260 265 270
 Leu Leu Leu Gln Phe Thr Gln Pro Gln Gln Thr Ser Phe Ala Leu Glu
 275 280 285
 Arg Asn Leu Arg Thr Gln Gln Glu Ile Glu Asp Lys Met Lys Gly Phe
 290 295 300
 Ser Phe Lys Glu Asp Thr Leu Leu Leu Ile Ala Glu Val Met Gly Glu
 305 310 315 320
 Asp Ile Pro Glu Lys Ile Lys Asp Glu Val His Pro Glu Val Lys Cys
 325 330 335
 Val Gly Ser Val Ala Leu Thr Ala Leu Val Thr Val Ser Ser Glu Glu
 340 345 350

Phe Glu Asp Lys Trp Phe Arg Lys Ile Lys Asp His Phe Cys Pro Phe
 355 360 365
 Glu Asn Gln Phe His Thr Glu Ile Gln Ile Leu Ala
 370 375 380

<210> 117

<211> 1836

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (283).. (732)

<400> 117

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gtctttttgct agtctggact ggagagcaac ttccctgagt caggactctt gctgctaatt 180
gcagaaaacc agcagtctct gtgaagtgtt ggtgttctca gaggtcagct gtaaaatata 240
gaatcctcat taattgtatt tacaactata ttgagcaaac caatgttgtt ctttattaat 300
gtacagacca aaaaagacac ctcaaaagaa aggacgtaog cgtttcttgt aaacacgagg 360
caccccaaga taagaagaca gatagagcaa gggatggaca tggatcatct ctcagtgtat 420
ggagaaagt acgggcttca gtttgatgtt caagaggcag tgaagaattt cttcccccca 480
ggaaatgaag tggtaaatgg agaaaattta agctttgcat atgaattcaa agctgatgca 540
ttatttgatt tcttctattg gtttgggctc agtaattccg ttgtaaaagt aaatggaaaa 600
gttcttttag gttcaataga tgatgttttt aactgcaatc tgtcaccag atcatctctg 660
acagagcctc ttttggcaga attaccattt ccaagtgttc tggaaatctga agagacaccc 720
aaccaattta tctgattgaa ctgaacattg tagcagttgc tcccgactc caggcctgtg 780
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1836

<210> 118

<211> 150

<212> PRT

<213> Homo sapiens

<400> 118

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Met Leu Phe Phe Ile Asn Val Gln Thr Lys Lys Asp Thr Ser Lys Glu
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Arg Thr Tyr Ala Phe Leu Val Asn Thr Arg His Pro Lys Ile Arg Arg
      20             25             30
Gln Ile Glu Gln Gly Met Asp Met Val Ile Ser Ser Val Ile Gly Glu
      35             40             45
Ser Tyr Arg Leu Gln Phe Asp Phe Gln Glu Ala Val Lys Asn Phe Phe
      50             55             60
Pro Pro Gly Asn Glu Val Val Asn Gly Glu Asn Leu Ser Phe Ala Tyr
      65             70             75             80
Glu Phe Lys Ala Asp Ala Leu Phe Asp Phe Phe Tyr Trp Phe Gly Leu
      85             90             95
Ser Asn Ser Val Val Lys Val Asn Gly Lys Val Leu Leu Gly Ser Ile
      100            105            110
Asp Asp Val Phe Asn Cys Asn Leu Ser Pro Arg Ser Ser Leu Thr Glu
      115            120            125
Pro Leu Leu Ala Glu Leu Pro Phe Pro Ser Val Leu Glu Ser Glu Glu

```

130	135	140
Thr Pro Asn Gln Phe Ile		
145	150	

<210> 119

<211> 1863

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (460).. (1233)

<400> 119

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agcgcgttgg gccccgccgg cgatgcccg cgccgcctcc tcggagcggc ggccaagttt 180
gaacttggcg tcggcctgga gccccgagca gccccggggc ggccggccgc aggcgagcgg 240
cgatgagatg tgtgcacaga cccaggccat gcagatactg gtgcctctaa cttcgtcagc 300
ccttagaaca tgacttctg tccccagtgg agaagaaacc agaagctaca gccaagtatg 360
tccccacca agtccatttc tttcagtgc ctgaaaatga ggaggatgcc tccctgaaga 420
gacatctcac acctcccaa ggcaacagcc cacattccaa tgagagaaag agcaccacca 480
cctcctccac cgagtcagga aaccccggtg tatagcatgg atgacttccc tccacctcct 540
ccccacactg tatgtgagga gcagctggac agtgaggatc ccgagggggc acgccccagc 600
ttcaacaaac tttctaaagt gacaattgca agggaaaggc acatgcctgg tgcagcccat 660
gtggtaggtg gtcagacact ggcttcaga ctccaaactt ctatcaaggg ttcagaggct 720
gagtccacac caccctcctt catgagcgtt cagcccaac ttgctgggtc tcttggtggg 780
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<213> Homo sapiens

Met	Arg	Glu	Arg	Ala	Pro	Pro	Pro	Pro	Pro	Pro	Ser	Gln	Glu	Thr	Pro
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Val	Tyr	Ser	Met	Asp	Asp	Phe	Pro	Pro	Pro	Pro	Pro	His	Thr	Val	Cys
			20					25					30		
Glu	Ala	Gln	Leu	Asp	Ser	Glu	Asp	Pro	Glu	Gly	Pro	Arg	Pro	Ser	Phe
			35				40					45			
Asn	Lys	Leu	Ser	Lys	Val	Thr	Ile	Ala	Arg	Glu	Arg	His	Met	Pro	Gly
	50					55					60				
Ala	Ala	His	Val	Val	Gly	Ser	Gln	Thr	Leu	Ala	Ser	Arg	Leu	Gln	Thr
65					70					75				80	
Ser	Ile	Lys	Gly	Ser	Glu	Ala	Glu	Ser	Thr	Pro	Pro	Ser	Phe	Met	Ser
				85					90				95		
Val	His	Ala	Gln	Leu	Ala	Gly	Ser	Leu	Gly	Gly	Gln	Pro	Ala	Pro	Ile
			100					105				110			
Gln	Thr	Gln	Ser	Leu	Ser	His	Asp	Pro	Val	Ser	Gly	Thr	Gln	Gly	Leu
			115				120					125			
Glu	Lys	Lys	Val	Ser	Pro	Asp	Pro	Gln	Lys	Ser	Ser	Glu	Asp	Ile	Arg

130	135	140
Thr Glu Ala Leu Ala Lys Glu Ile Val His Gln Asp Lys Ser Leu Ala		
145	150	155
Asp Ile Leu Asp Pro Asp Ser Arg Leu Lys Thr Thr Met Asp Leu Met		160
	165	170
Glu Gly Leu Phe Pro Arg Asp Val Asn Leu Leu Lys Glu Asn Ser Val		175
	180	185
Lys Arg Lys Ala Ile Gln Arg Thr Val Ser Ser Ser Gly Cys Glu Gly		190
	195	200
Lys Arg Asn Glu Asp Lys Glu Ala Val Ser Met Leu Val Asn Cys Pro		205
	210	215
Gln Ile Ser Phe Pro Arg Leu Gly Pro Trp Leu Cys Pro Gln Thr Ser		220
225	230	235
Arg Val Ser Pro Phe Leu Leu Gly Ala Val Leu Ser Val Val Phe Ser		240
	245	250
		255
Gln His		

<210> 121

<211> 2203

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (91).. (564)

<400> 121

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gtcaggtcc ggataggggg caagggtaca gctgcagaa agaagaaggt ggtacataga 180
acagccacag ctgatgacaa aaagcttcag agttctctaa aaaaactggc tgtgaataat 240
atagctggta ttgaagaggt gaacatgatt aaagatgatg ggacagttat tcatttcaac 300
aatcccaaag tccaagcttc cttttctgct aatacctttg caattactgg tcatgcagaa 360
gccaaaccaa tcacagaaat gtttctgga atattaagtc agcttggtgc tgacagttta 420

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acaagcotta ggaagttagc tgaacagttc ccacggcaag tcttggacag taaagcacca 480
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gaggcatcaa agaatgaagc taactaaaag tttggttttt ggaagctggc atggactaga 600
tttaacaaat cagctatgtg gttccaaagt ttacagaca tggagaacat cacctgttac 660
tagttcagta atataaatat tttgtatatt aataatgctg tttgttcagc atttttcggg 720
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<210> 122

<211> 158

<212> PRT

<213> Homo sapiens

<400> 122

Met Asn Gln Glu Lys Leu Ala Lys Leu Gln Ala Gln Val Arg Ile Gly
 1 5 10 15
 Gly Lys Gly Thr Ala Arg Arg Lys Lys Lys Val Val His Arg Thr Ala
 20 25 30
 Thr Ala Asp Asp Lys Lys Leu Gln Ser Ser Leu Lys Lys Leu Ala Val
 35 40 45
 Asn Asn Ile Ala Gly Ile Glu Glu Val Asn Met Ile Lys Asp Asp Gly
 50 55 60
 Thr Val Ile His Phe Asn Asn Pro Lys Val Gln Ala Ser Leu Ser Ala
 65 70 75 80
 Asn Thr Phe Ala Ile Thr Gly His Ala Glu Ala Lys Pro Ile Thr Glu
 85 90 95
 Met Leu Pro Gly Ile Leu Ser Gln Leu Gly Ala Asp Ser Leu Thr Ser
 100 105 110
 Leu Arg Lys Leu Ala Glu Gln Phe Pro Arg Gln Val Leu Asp Ser Lys
 115 120 125
 Ala Pro Lys Pro Glu Asp Ile Asp Glu Glu Asp Asp Asp Val Pro Asp
 130 135 140
 Leu Val Glu Asn Phe Asp Glu Ala Ser Lys Asn Glu Ala Asn
 145 150 155

<210> 123

<211> 1696

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (62).. (898)

<400> 123

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<210> 124

<211> 279

<212> PRT

<213> Homo sapiens

<400> 124

Met Val Asp His Leu Ala Asn Thr Glu Ile Asn Ser Gln Arg Ile Ala

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Ala Val Glu Ser Cys Phe Gly Ala Ser Gly Gln Pro L u Ala Leu Pro			
20	25	30	
Gly Arg Val Leu Leu Gly Glu Gly Val Leu Thr Lys Glu Cys Arg Lys			
35	40	45	
Lys Ala Lys Pro Arg Ile Leu Phe Leu Phe Asn Asp Ile Leu Val Tyr			
50	55	60	
Gly Ser Ile Val Leu Asn Lys Arg Lys Tyr Arg Ser Gln His Ile Ile			
65	70	75	80
Pro Leu Glu Glu Val Thr Leu Glu Leu Leu Pro Glu Thr Leu Gln Ala			
85	90	95	
Lys Asn Arg Trp Met Ile Lys Thr Ala Lys Lys Ser Phe Val Val Ser			
100	105	110	
Ala Ala Ser Ala Thr Glu Arg Gln Glu Trp Ile Ser His Ile Glu Glu			
115	120	125	
Cys Val Arg Arg Gln Leu Arg Ala Thr Gly Arg Pro Pro Ser Thr Glu			
130	135	140	
His Ala Ala Pro Trp Ile Pro Asp Lys Ala Thr Asp Ile Cys Met Arg			
145	150	155	160
Cys Thr Gln Thr Arg Phe Ser Ala Leu Thr Arg Arg His His Cys Arg			
165	170	175	
Lys Cys Gly Phe Val Val Cys Ala Glu Cys Ser Arg Gln Arg Phe Leu			
180	185	190	
Leu Pro Arg Leu Ser Pro Lys Pro Val Arg Val Cys Ser Leu Cys Tyr			
195	200	205	
Arg Glu Leu Ala Ala Gln Gln Arg Gln Glu Glu Ala Glu Glu Gln Gly			
210	215	220	
Ala Gly Ser Pro Gly Gln Pro Ala His Leu Ala Arg Pro Ile Cys Gly			
225	230	235	240
Ala Ser Ser Gly Asp Asp Asp Asp Ser Asp Glu Asp Lys Glu Gly Ser			
245	250	255	
Arg Asp Gly Asp Trp Pro Ser Ser Val Glu Phe Tyr Ala Ser Gly Val			
260	265	270	
Ala Trp Ser Ala Phe His Ser			
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<210> 125

<211> 3078

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1668).. (2561)

<400> 125

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<210> 126

<211> 298

<212> PRT

<213> Homo sapiens

<400> 126

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20	25	30	
Pro Leu Pro Asn Arg Pro His Trp Phe Leu Leu Phe Gly Ala Thr Glu			
35	40	45	
Glu Glu Ile Gln Glu Ile Cys Leu Lys Ile Leu Gln Leu Tyr Ala Arg			
50	55	60	
Lys Lys Val Asp Leu Thr His Leu Glu Gly Glu Val Glu Lys Arg Lys			
65	70	75	80
His Ala Ile Glu Glu Ala Lys Ala Gln Ala Arg Gly Leu Leu Pro Gly			
85	90	95	
Gly Thr Gln Val Leu Asp Gly Thr Ser Gly Phe Ser Pro Ala Pro Lys			
100	105	110	
Leu Val Glu Ser Pro Lys Glu Gly Lys Gly Ser Lys Pro Ser Pro Leu			
115	120	125	
Ser Val Lys Asn Thr Lys Arg Arg Leu Glu Gly Ala Lys Lys Ala Lys			
130	135	140	
Ala Asp Ser Pro Val Asn Gly Leu Pro Lys Gly Arg Glu Ser Arg Ser			
145	150	155	160
Arg Ser Arg Ser Arg Glu Gln Ser Tyr Ser Arg Ser Pro Ser Arg Ser			
165	170	175	
Ala Ser Pro Lys Arg Arg Lys Ser Asp Ser Gly Ser Thr Ser Gly Gly			
180	185	190	
Ser Lys Ser Gln Ser Arg Ser Arg Ser Arg Ser Asp Ser Pro Pro Arg			
195	200	205	
Gln Ala Pro Arg Ser Ala Pro Tyr Lys Gly Ser Glu Ile Arg Gly Ser			
210	215	220	
Arg Lys Ser Lys Asp Cys Lys Tyr Pro Gln Lys Pro His Lys Ser Arg			
225	230	235	240
Ser Arg Ser Ser Ser Arg Ser Arg Ser Arg Ser Arg Glu Arg Ala Asp			
245	250	255	
Asn Pro Gly Lys Tyr Lys Lys Lys Ser His Tyr Tyr Arg Asp Gln Arg			
260	265	270	
Arg Glu Arg Ser Arg Ser Tyr Glu Arg Thr Gly Arg Arg Tyr Glu Arg			
275	280	285	
Asp His Pro Gly His Ser Arg His Arg Arg			

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295

<210> 127

<211> 1844

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (401).. (1456)

<400> 127

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<210> 128

<211> 352

<212> PRT

<213> Homo sapiens

<400> 128

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      20             25             30
Ala Glu Arg Gly Lys Ala Lys Asp Ala Asp Leu Arg Pro Gly Asp Ile
      35             40             45
Ile Val Ala Ile Asn Gly Glu Ser Ala Glu Gly Met Leu His Ala Glu
      50             55             60
Ala Gln Ser Lys Ile Arg Gln Ser Pro Ser Pro Leu Arg Leu Gln Leu
      65             70             75             80
Asp Arg Ser Gln Ala Thr Ser Pro Gly Gln Thr Asn Gly Asp Ser Ser
      85             90             95
Leu Glu Val Leu Ala Thr Arg Phe Gln Gly Ser Val Arg Thr Tyr Thr
      100            105            110
Glu Ser Gln Ser Ser Leu Arg Ser Ser Tyr Ser Ser Pro Thr Ser Leu
      115            120            125
Ser Pro Arg Ala Gly Ser Pro Phe Ser Pro Pro Pro Ser Ser Ser Ser
      130            135            140
Leu Thr Gly Glu Ala Ala Ile Ser Arg Ser Phe Gln Ser Leu Ala Cys
145            150            155            160

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Ser Pro Gly Leu Pro Ala Ala Asp Arg Leu Ser Tyr Ser Gly Arg Pro
 165 170 175
 Gly Ser Arg Gln Ala Gly Leu Gly Arg Ala Gly Asp Ser Ala Val Leu
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 Val Leu Pro Pro Ser Pro Gly Pro Arg Ser Ser Arg Pro Ser Met Asp
 195 200 205
 Ser Glu Gly Gly Ser Leu Leu Leu Asp Glu Asp Ser Glu Val Phe Lys
 210 215 220
 Met Leu Gln Glu Asn Arg Glu Gly Arg Ala Ala Pro Arg Gln Ser Ser
 225 230 235 240
 Ser Phe Arg Leu Leu Gln Glu Ala Leu Glu Ala Glu Glu Arg Gly Gly
 245 250 255
 Thr Pro Ala Phe Leu Pro Ser Ser Leu Ser Pro Gln Ser Ser Leu Pro
 260 265 270
 Ala Ser Arg Ala Leu Ala Thr Pro Pro Lys Leu His Thr Cys Glu Lys
 275 280 285
 Cys Ser Thr Ser Ile Ala Asn Gln Ala Val Arg Ile Gln Glu Gly Arg
 290 295 300
 Tyr Arg His Pro Gly Cys Tyr Thr Cys Ala Asp Cys Gly Leu Asn Leu
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<210> 129

<211> 2356

<212> DNA

<213> Homo sapiens

<400> 129

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<210> 130

<211> 1731

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (72).. (1373)

<400> 130

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<210> 131

<211> 434

<212> PRT

<213> Homo sapiens

<400> 131

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			20					25					30		
Ala	Asp	Ala	Ile	Pro	Tyr	Cys	Ser	Ser	Asp	Trp	Ala	Leu	Leu	Arg	Glu
		35					40					45			
Glu	Glu	Lys	Glu	Lys	Tyr	Ala	Glu	Met	Ala	Arg	Glu	Trp	Arg	Ala	Ala
		50				55				60					
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Pro	Leu	Arg	Arg	Pro	Gly	Met	Leu	Val	Pro	Lys	Gln	Asn	Val	Ser	Pro
			85					90					95		
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		100					105					110			
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		115					120				125				
His	Cys	Glu	Gln	Arg	Phe	Leu	Pro	Cys	Glu	Ile	Gly	Cys	Val	Lys	Tyr
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			165					170					175		
Ser	Ser	His	Lys	Ile	Pro	Ile	Ser	Asn	Phe	Glu	Arg	Gly	His	Asn	Gln

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Asn Trp Pro Pro Ile Tyr Cys Lys Ser Asp Asp Arg Thr Arg Val Asn		
210	215	220
Trp Cys Leu Lys His Met Ala Lys Ala Ser Glu Ile Arg Gln Asp Leu		
225	230	235
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245	250	255
Phe Leu Lys Glu Pro Ser Lys Thr Trp Ile Arg Ser Leu Leu Asp Val		
260	265	270
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275	280	285
Asn Asp Ile Leu Phe Cys Ala Leu Ala Val Cys Lys Lys Ile Ala Tyr		
290	295	300
Cys Ile Ser Asn Ser Leu Ala Thr Leu Phe Gly Ile Gln Leu Thr Glu		
305	310	315
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325	330	335
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Ser Ser Gly Phe Ser His Phe Asn Ser Ser Asn Glu Glu Gln Arg Ser		
355	360	365
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370	375	380
Asn Ser Ser Val Arg Gly Arg Gly Ile Thr Arg Leu Leu Glu Ser Ile		
385	390	395
Ser Asn Ser Ser Ser Asn Ile His Lys Phe Ser Asn Cys Asp Thr Ser		
405	410	415
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<211> 1561

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (385).. (1281)

<400> 132

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1561

<210> 133

<211> 299

<212> PRT

<213> Homo sapiens

<400> 133

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Gln Asp Leu Pro Met Asn Glu Leu Asp Glu Ser Glu Glu Glu Glu Met
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Ile Thr Val Val Leu Glu Glu Ala Lys Glu Lys Trp Asp Cys Glu Ser
      165            170            175
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<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (305).. (970)

<400> 134

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<210> 135

<211> 222

<212> PRT

<213> Homo sapiens

<400> 135

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Glu	Ile	Glu	Asp	Ala	Ile	Ala	Asp	His	Pro	Ala	Val	Pro	Glu	Ser	Ala
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<211> 1972

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (666).. (1487)

<400> 136

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<210> 137

<211> 274

<212> PRT

<213> Homo sapiens

<400> 137

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Val	Leu	Phe	Leu	Ser	Lys	Gly	Ser	Ser	Arg	Ala	His	Ile	Pro	Ala	Pro
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Cys	Arg	Glu	Glu	Val	Gly	Pro	Ala	Leu	Pro	Pro	Ala	Ala	Pro	Pro	Ala
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210	215	220	
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<210> 138

<211> 3677

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (996).. (3437)

<400> 138

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<211> 814

<212> PRT

<213> Homo sapiens

<400> 139

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Asp	Trp	Ala	Val	Gln	Tyr	Arg	Glu	Ala	Val	Glu	Met	Glu	Val	Gln	Ala
			20					25					30		
Ala	Ala	Val	Ala	Val	Ala	Glu	Ala	Glu	Ala	Arg	Ala	Glu	Ala	Arg	Ala
		35				40						45			
Gln	Met	Gly	Ile	Gly	Glu	Glu	Ala	Val	Ala	Gly	Pro	Trp	Asn	Trp	Asp
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Asp	Met	Asp	Ile	Asp	Cys	Leu	Thr	Arg	Glu	Glu	Leu	Gly	Asp	Asp	Ala
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Gln	Ala	Trp	Ser	Arg	Phe	Ser	Phe	Glu	Ile	Glu	Ala	Arg	Ala	Gln	Glu
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Asn	Ala	Asp	Ala	Ser	Thr	Asn	Val	Asn	Phe	Ser	Arg	Gly	Ala	Ser	Thr
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Ser Ile Ser Phe Gly Gly Met Pro Cys Thr Ser Ala Ser Phe Ser Gly			
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Gly Val Ser Ser Ser Phe Ser Gly Pro Leu Ser Thr Ser Ala Thr Phe			
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Ser Gly Gly Ala Ser Ser Gly Phe Gly Gly Thr Leu Ser Thr Thr Ala			
225	230	235	240
Gly Phe Ser Gly Val Leu Ser Thr Ser Thr Ser Phe Gly Ser Ala Pro			
	245	250	255
Thr Thr Ser Thr Val Phe Ser Ser Ala Leu Ser Thr Ser Thr Gly Phe			
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Gly Gly Ile Leu Ser Thr Ser Val Cys Phe Gly Gly Ser Pro Ser Ser			
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Ser Gly Ser Phe Gly Gly Thr Leu Ser Thr Ser Ile Cys Phe Gly Gly			
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Ser Pro Cys Thr Ser Thr Gly Phe Gly Gly Thr Leu Ser Thr Ser Val			
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385	390	395	400
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Gly Thr Ser Ala Gly Phe Gly Gly Gly Leu Val Thr Ser Asp Gly Phe		
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675	680	685
Ser Ala Gly Phe Ser Gly Gly Leu Ser Thr Ser Asp Gly Phe Gly Ser		
690	695	700
Arg Pro Asn Ala Ser Phe Asp Arg Gly Leu Ser Thr Ile Ile Gly Phe		

705	710	715	720
Gly Ser Gly Ser Asn Thr Ser Thr Gly Phe Thr Gly Glu Pro Ser Thr			
	725	730	735
Ser Thr Gly Phe Ser Ser Gly Pro Ser Ser Ile Val Gly Phe Ser Gly			
	740	745	750
Gly Pro Ser Thr Gly Val Gly Phe Cys Ser Gly Pro Ser Thr Ser Gly			
	755	760	765
Phe Ser Gly Gly Pro Ser Thr Gly Ala Gly Phe Gly Gly Gly Pro Asn			
	770	775	780
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785	790	795	800
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<211> 5097

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (72).. (1910)

<400> 140

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<210> 141

<211> 613

<212> PRT

<213> Homo sapiens

<400> 141

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			20					25					30		
Val	Ser	Lys	Ala	Lys	His	Leu	Gln	Phe	Phe	Ser	Gly	Val	Lys	Pro	Val
		35					40					45			
Ile	Tyr	Trp	Leu	Ser	Asn	Phe	Val	Trp	Asp	Met	Cys	Asn	Tyr	Val	Val
	50					55					60				
Pro	Ala	Thr	Leu	Val	Ile	Ile	Ile	Phe	Ile	Cys	Phe	Gln	Gln	Lys	Ser
65					70					75				80	
Tyr	Val	Ser	Ser	Thr	Asn	Leu	Pro	Val	Leu	Ala	Leu	Leu	Leu	Leu	Leu
				85					90					95	
Tyr	Gly	Trp	Ser	Ile	Thr	Pro	Leu	Met	Tyr	Pro	Ala	Ser	Phe	Val	Phe
			100					105					110		
Lys	Ile	Pro	Ser	Thr	Ala	Tyr	Val	Val	Leu	Thr	Ser	Val	Asn	Leu	Phe
		115						120					125		
Ile	Gly	Ile	Asn	Gly	Ser	Val	Ala	Thr	Phe	Val	Leu	Glu	Leu	Phe	Thr
	130					135					140				
Asp	Asn	Lys	Leu	Asn	Asn	Ile	Asn	Asp	Ile	Leu	Lys	Ser	Val	Phe	Leu
145				150						155				160	
Ile	Phe	Pro	His	Phe	Cys	Leu	Gly	Arg	Gly	Leu	Ile	Asp	Met	Val	Lys
			165					170					175		
Asn	Gln	Ala	Met	Ala	Asp	Ala	Leu	Glu	Arg	Phe	Gly	Glu	Asn	Arg	Phe
		180						185					190		
Val	Ser	Pro	Leu	Ser	Trp	Asp	Leu	Val	Gly	Arg	Asn	Leu	Phe	Ala	Met
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 Arg Phe Phe Ile Arg Pro Arg Pro Val Asn Ala Lys Leu Ser Pro Leu
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 Pro Pro Gly Glu Cys Phe Gly Leu Leu Gly Val Asn Gly Ala Gly Lys
 290 295 300
 Ser Ser Thr Phe Lys Met Leu Thr Gly Asp Thr Thr Val Thr Arg Gly
 305 310 315 320
 Asp Ala Phe Leu Asn Lys Asn Ser Ile Leu Ser Asn Ile His Glu Val
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 His Gln Asn Met Gly Tyr Cys Pro Gln Phe Asp Ala Ile Thr Glu Leu
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 Pro Glu Lys Glu Val Gly Lys Val Gly Glu Trp Ala Ile Arg Lys Leu
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 Gly Leu Val Lys Tyr Gly Glu Lys Tyr Ala Gly Asn Tyr Ser Gly Gly
 385 390 395 400
 Asn Lys Arg Lys Leu Ser Thr Ala Met Ala Leu Ile Gly Gly Pro Pro
 405 410 415
 Val Val Phe Leu Asp Glu Pro Thr Thr Gly Met Asp Pro Lys Ala Arg
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 Arg Phe Leu Trp Asn Cys Ala Leu Ser Val Val Lys Glu Gly Arg Ser
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 Val Val Leu Thr Ser His Ser Met Glu Glu Cys Glu Ala Leu Cys Thr
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 Arg Met Ala Ile Met Val Asn Gly Arg Phe Arg Cys Leu Gly Ser Val
 465 470 475 480
 Gln His Leu Lys Asn Arg Phe Gly Asp Gly Tyr Thr Ile Val Val Arg
 485 490 495

Ile Ala Gly Ser Asn Pro Asp Leu Lys Pro Val Gln Asp Phe Phe Gly
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 Leu Ala Phe Pro Gly Ser Val Leu Lys Glu Lys His Arg Asn Met Leu
 515 520 525
 Gln Tyr Gln Leu Pro Ser Ser Leu Ser Ser Leu Ala Arg Ile Phe Ser
 530 535 540
 Ile Leu Ser Gln Ser Lys Lys Arg Leu His Ile Glu Asp Tyr Ser Val
 545 550 555 560
 Ser Gln Thr Thr Leu Asp Gln Val Phe Val Asn Phe Ala Lys Asp Gln
 565 570 575
 Ser Asp Asp Asp His Leu Lys Asp Leu Ser Leu His Lys Asn Gln Thr
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 Val Val Asp Val Ala Val Leu Thr Ser Phe Leu Gln Asp Glu Lys Val
 595 600 605
 Lys Glu Ser Tyr Val
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<210> 142

<211> 2214

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (81).. (734)

<400> 142

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<210> 143

<211> 218

<212> PRT

<213> Homo sapiens

<400> 143

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 35 40 45
 Glu Gln Met Leu Arg Lys Asp Gln Lys Thr Ile Tyr Arg Gln Gly Val
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 Lys Val Ala Ile Ser Ala Ile Tyr Met Asp Leu Glu Ile Cys Glu Val
 65 70 75 80
 Leu Glu Arg Ser His Ser Pro Pro Leu Lys Leu Thr Pro Ala Ser Ser
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 Thr His Pro Asn Leu His Ala Tyr Leu Gln Gly Asn Thr Gln Val Ser
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 Arg Lys Lys Leu Leu Pro Leu Leu Gln Glu Ala Leu Ser Ala Tyr Phe
 115 120 125
 Asp Ser Met Lys Ile Pro Ser Gly Gln Pro Glu Thr Ala Asp Val Ser
 130 135 140
 Arg Glu Gln Val Asp Lys Glu Leu Asp Arg Ala Ser Asn Ser Leu Ile
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 Ser Gly Leu Ser Gln Asp Glu Glu Asp Pro Pro Leu Pro Pro Thr Pro
 165 170 175
 Met Asn Ser Leu Val Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys
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 Leu Ser Ala Glu Ala Val Phe Glu Lys Cys Ser Gln Ile Ser Leu Ser
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 Gln Ser Thr Thr Ala Ser Leu Ser Lys Lys
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<210> 144

<211> 1750

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (158).. (1492)

<400> 144

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1750

<210> 145

<211> 445

<212> PRT

<213> Homo sapiens

<400> 145

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      20           25           30
Glu Leu Pro Val Val Val Lys Glu Leu Pro Glu Gly Trp Ser Leu Pro
      35           40           45
Ser Tyr Val Ser Val Leu Val Ala Leu Gly Asn Leu Gly Leu Leu Val
      50           55           60
Val Thr Leu Trp Arg Arg Leu Ala Pro Gly Lys Asp Glu Gln Val Pro
      65           70           75           80
Ile Arg Val Val Gln Val Leu Gly Met Val Gly Thr Ala Leu Leu Ala
      85           90           95
Ser Leu Trp His His Val Ala Pro Val Ala Gly Gln Leu His Ser Val
      100          105          110
Ala Phe Leu Ala Leu Ala Phe Val Leu Ala Leu Ala Cys Cys Ala Ser
      115          120          125
Asn Val Thr Phe Leu Pro Phe Leu Ser His Leu Pro Pro Arg Phe Leu
      130          135          140
Arg Ser Phe Phe Leu Gly Gln Gly Leu Ser Ala Leu Leu Pro Cys Val
      145          150          155          160
Leu Ala Leu Val Gln Gly Val Gly Arg Leu Glu Cys Pro Pro Ala Pro
      165          170          175
Ile Asn Gly Thr Pro Gly Pro Pro Leu Asp Phe Leu Glu Arg Phe Pro
      180          185          190
Ala Ser Thr Phe Phe Trp Ala Leu Thr Ala Leu Leu Val Ala Ser Ala
      195          200          205
Ala Ala Phe Gln Gly Leu Leu Leu Leu Leu Pro Pro Pro Pro Ser Val
      210          215          220
Pro Thr Gly Glu Leu Gly Ser Gly Leu Gln Val Gly Ala Pro Gly Ala

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225	230	235	240
Glu Glu Glu Val	Glu Glu Ser Ser Pro Leu	Gln Glu Pro Pro Ser	Gln
245	250	255	
Ala Ala Gly Thr Thr Pro Gly Pro Asp Pro Lys Ala Tyr Gln Leu Leu			
260	265	270	
Ser Ala Arg Ser Ala Cys Leu Leu Gly Leu Leu Ala Ala Thr Asn Ala			
275	280	285	
Leu Thr Asn Gly Val Leu Pro Ala Val Gln Ser Phe Ser Cys Leu Pro			
290	295	300	
Tyr Gly Arg Leu Ala Tyr His Leu Ala Val Val Leu Gly Ser Ala Ala			
305	310	315	320
Asn Pro Leu Ala Cys Phe Leu Ala Met Gly Val Leu Cys Arg Ser Leu			
325	330	335	
Ala Gly Leu Gly Gly Leu Ser Leu Leu Gly Val Phe Cys Gly Gly Tyr			
340	345	350	
Leu Met Ala Leu Ala Val Leu Ser Pro Cys Pro Pro Leu Val Gly Thr			
355	360	365	
Ser Ala Gly Val Val Leu Val Val Leu Ser Trp Val Leu Cys Leu Gly			
370	375	380	
Val Phe Ser Tyr Val Lys Val Ala Ala Ser Ser Leu Leu His Gly Gly			
385	390	395	400
Gly Arg Pro Ala Leu Leu Ala Ala Gly Val Ala Ile Gln Val Gly Ser			
405	410	415	
Leu Leu Gly Ala Val Ala Met Phe Pro Pro Thr Ser Ile Tyr His Val			
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Phe His Ser Arg Lys Asp Cys Ala Asp Pro Cys Asp Ser			
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<210> 146

<211> 2291

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (132)..(740)

<400> 146

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 ggcaagaata ttggagatt ctggctaagg aggtctgtga agatggagat gatgaagatt 420
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 aagataacc ttgtgatgag tatcagatat ttaaagctat ctccaact atccaact 540
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 tacaggacat agcaactctg gctgtgactc acgtcttaa tgaagaaca agaaacagt 660
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<210> 147

<211> 203

<212> PRT

<213> Homo sapiens

<400> 147

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		20					25						30		
Leu	Phe	Asn	Gly	Leu	Lys	Arg	Ala	Tyr	Ala	Cys	His	Ala	Glu	His	Glu
		35				40						45			
Asn	Asp	Ser	Asp	Asp	Asp	Asp	Glu	Ala	Glu	Asp	Asp	Asp	Glu	Thr	Glu
	50					55						60			
Glu	Leu	Gly	Ser	Asp	Glu	Asp	Asp	Ile	Asp	Glu	Asp	Gly	Gln	Glu	Tyr
65				70					75					80	
Leu	Glu	Ile	Leu	Ala	Lys	Gln	Ala	Gly	Glu	Asp	Gly	Asp	Asp	Glu	Asp
			85					90						95	
Trp	Glu	Glu	Asp	Asp	Ala	Glu	Glu	Thr	Ala	Leu	Glu	Gly	Tyr	Ser	Thr
		100					105						110		
Ile	Ile	Asp	Asp	Glu	Asp	Asn	Pro	Val	Asp	Glu	Tyr	Gln	Ile	Phe	Lys
		115					120						125		
Ala	Ile	Phe	Gln	Thr	Ile	Gln	Asn	Arg	Asn	Pro	Val	Trp	Tyr	Gln	Ala
	130					135						140			
Leu	Thr	His	Gly	Leu	Asn	Glu	Glu	Gln	Arg	Lys	Gln	Leu	Gln	Asp	Ile
145				150					155					160	
Ala	Thr	Leu	Ala	Asp	Gln	Arg	Arg	Ala	Ala	His	Glu	Ser	Lys	Met	Ile
			165					170						175	

Glu Lys His Gly Gly Tyr Lys Phe Ser Ala Pro Val Val Pro Ser Ser

180

185

190

Phe Asn Phe Gly Gly Pro Ala Pro Gly Met Asn

195

200

<210> 148

<211> 2148

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (64).. (1812)

<400> 148

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<210> 149

<211> 583

<212> PRT

<213> Homo sapiens

<400> 149

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Asp	Pro	Arg	Phe	Glu	Gly	Tyr	Lys	Leu	Ser	Leu	Glu	Pro	Leu	Pro	Cys
				20					25					30	
Tyr	Gln	Leu	Glu	Leu	Asp	Ala	Ala	Val	Ala	Glu	Val	Lys	Leu	Arg	Asp
				35					40					45	
Asp	Gln	Tyr	Thr	Leu	Glu	His	Met	His	Ala	Phe	Gly	Met	Tyr	Asn	Tyr
				50					55					60	
Leu	His	Cys	Asp	Ser	Trp	Tyr	Gln	Asp	Ser	Val	Tyr	Tyr	Ile	Asp	Thr
				65					70					75	
Leu	Gly	Arg	Ile	Met	Asn	Leu	Thr	Val	Met	Leu	Asp	Thr	Ala	Leu	Gly
				85					90					95	

Lys Pro Arg Glu Val Phe Arg Leu Pro Thr Asp Leu Thr Ala Cys Asp
 100 105 110
 Asn Arg Leu Cys Ala Ser Ile His Phe Ser Ser Ser Thr Trp Val Thr
 115 120 125
 Leu Ser Asp Gly Thr Gly Arg Leu Tyr Val Ile Gly Thr Gly Glu Arg
 130 135 140
 Gly Asn Ser Ala Ser Glu Lys Trp Glu Ile Met Phe Asn Glu Glu Leu
 145 150 155 160
 Gly Asp Pro Phe Ile Ile Ile His Ser Ile Ser Leu Leu Asn Ala Glu
 165 170 175
 Glu His Ser Ile Ala Thr Leu Leu Leu Arg Ile Glu Lys Glu Glu Leu
 180 185 190
 Asp Met Lys Gly Ser Gly Phe Tyr Val Ser Leu Glu Trp Val Thr Ile
 195 200 205
 Ser Lys Lys Asn Gln Asp Asn Lys Lys Tyr Glu Ile Ile Lys Arg Asp
 210 215 220
 Ile Leu Arg Gly Lys Ser Val Pro His Tyr Ala Ala Ile Glu Pro Asp
 225 230 235 240
 Gly Asn Gly Leu Met Ile Val Ser Tyr Lys Ser Leu Thr Phe Val Gln
 245 250 255
 Ala Gly Gln Asp Leu Glu Glu Asn Met Asp Glu Asp Ile Ser Glu Lys
 260 265 270
 Ile Lys Glu Pro Leu Tyr Tyr Trp Gln Gln Thr Glu Asp Asp Leu Thr
 275 280 285
 Val Thr Ile Arg Leu Pro Glu Asp Ser Thr Lys Glu Asp Ile Gln Ile
 290 295 300
 Gln Phe Leu Pro Asp His Ile Asn Ile Val Leu Lys Asp His Gln Phe
 305 310 315 320
 Leu Glu Gly Lys Leu Tyr Ser Ser Ile Asp His Glu Ser Ser Thr Trp
 325 330 335
 Ile Ile Lys Glu Ser Asn Ser Leu Glu Ile Ser Leu Ile Lys Lys Asn
 340 345 350
 Glu Gly Leu Thr Trp Pro Glu Leu Val Ile Gly Asp Lys Gln Gly Glu
 355 360 365
 Leu Ile Arg Asp Ser Ala Gln Cys Ala Ala Ile Ala Glu Arg Leu Met
 370 375 380

His Leu Thr Ser Glu Glu Leu Asn Pro Asn Pro Asp Lys Glu Lys Pro
 385 390 395 400
 Pro Cys Ser Ala Gln Glu Leu Glu Glu Cys Asp Ile Phe Phe Glu Glu
 405 410 415
 Ser Ser Ser Leu Cys Arg Phe Asp Gly Asn Thr Leu Lys Thr Thr His
 420 425 430
 Val Val Asn Leu Gly Ser Asn Gln Tyr Leu Phe Ser Val Ile Val Asp
 435 440 445
 Pro Lys Glu Met Pro Cys Phe Cys Leu Arg His Asp Val Asp Ala Leu
 450 455 460
 Leu Trp Gln Pro His Ser Ser Lys Gln Asp Asp Met Trp Glu His Ile
 465 470 475 480
 Ala Thr Phe Asn Ala Leu Gly Tyr Val Gln Ala Ser Lys Arg Asp Lys
 485 490 495
 Lys Phe Phe Ala Cys Ala Pro Asn Tyr Ser Tyr Ala Ala Leu Cys Glu
 500 505 510
 Cys Leu Arg Arg Val Phe Ile Tyr Arg Gln Pro Ala Pro Met Ser Thr
 515 520 525
 Val Leu Tyr Asn Arg Lys Glu Gly Arg Gln Val Gly Gln Val Ala Lys
 530 535 540
 Gln Gln Val Ala Ser Leu Glu Thr Asn Asp Pro Ile Leu Gly Phe Gln
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<210> 150

<211> 30

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: artificially synthesized sequence

<400> 150

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30

<210> 151

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: artificially
synthesized sequence

<400> 151

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42

<210> 152

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: artificially
synthesized sequence

<400> 152

agcatcgagt cggccttggt g

21

<210> 153

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: artificially
synthesized sequence

<400> 153

gcggctgaag acggcctatg t

21

<210> 154

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: artificially
synthesized sequence

<400> 154

tacggaagtg ttacttctgc

20

<210> 155

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: artificially
synthesized sequence

<400> 155

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20

<210> 156

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: artificially
synthesized sequence

<400> 156

gttttcccag tcacgac

17

<210> 157

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: artificially
synthesized sequence

<400> 157

caggaaacag ctatgac

17